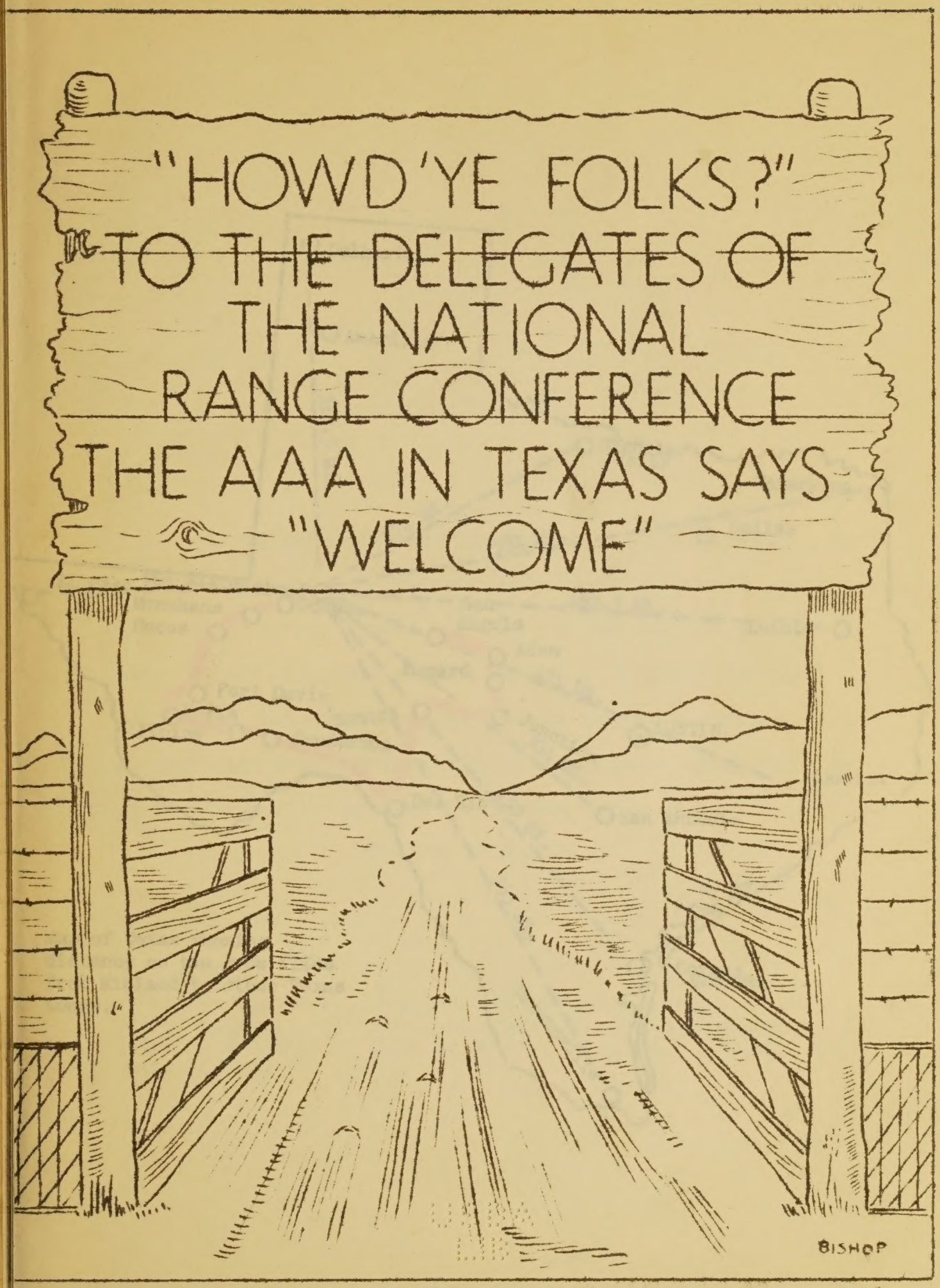
Rennels

TRAVELOG OF THE NATIONAL RANGE CONFERENCE

JUNE 24 TO 28

TEXAS 1940


"HOWD'YE FOLKS?"
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THE NATIONAL
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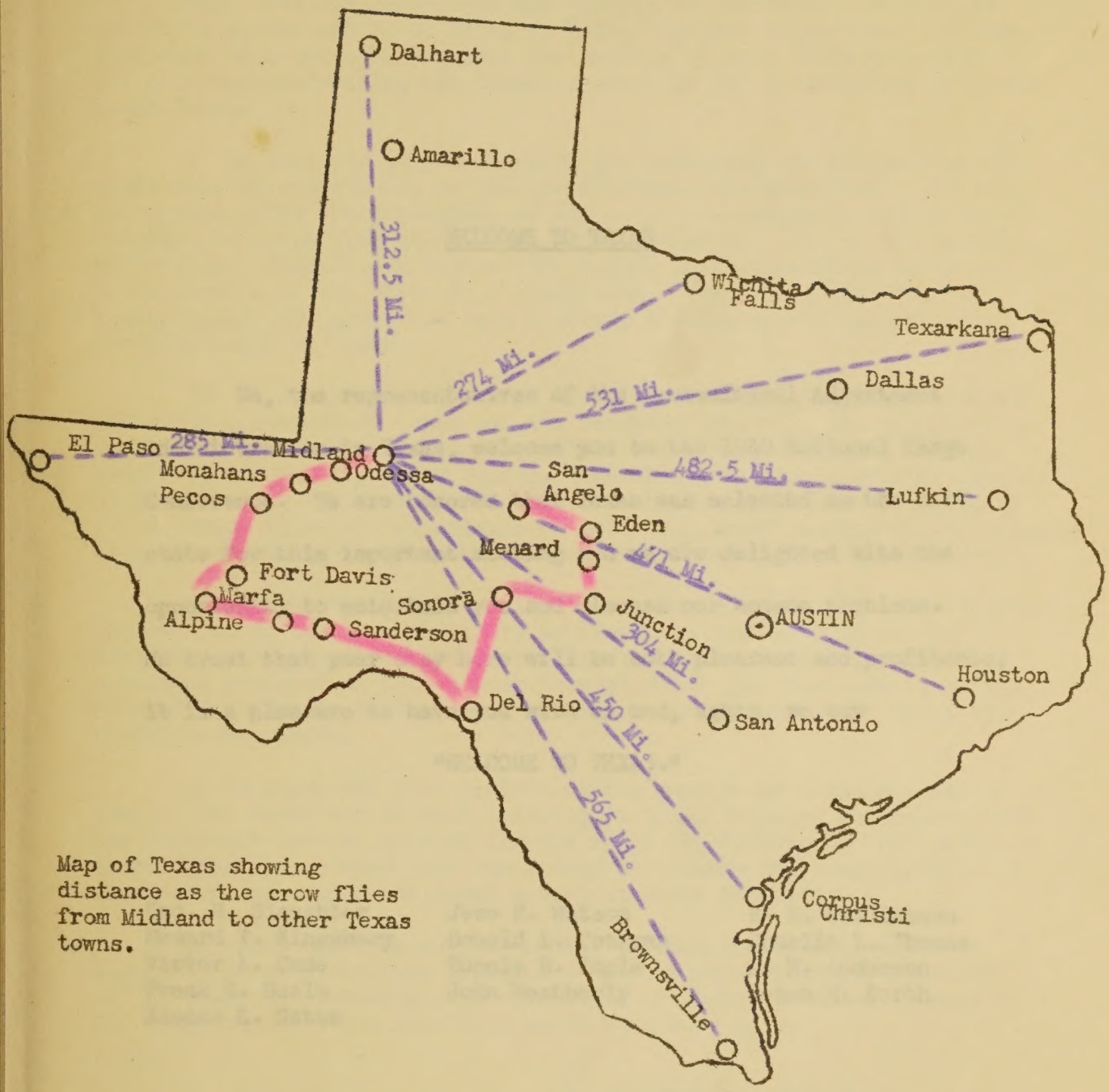
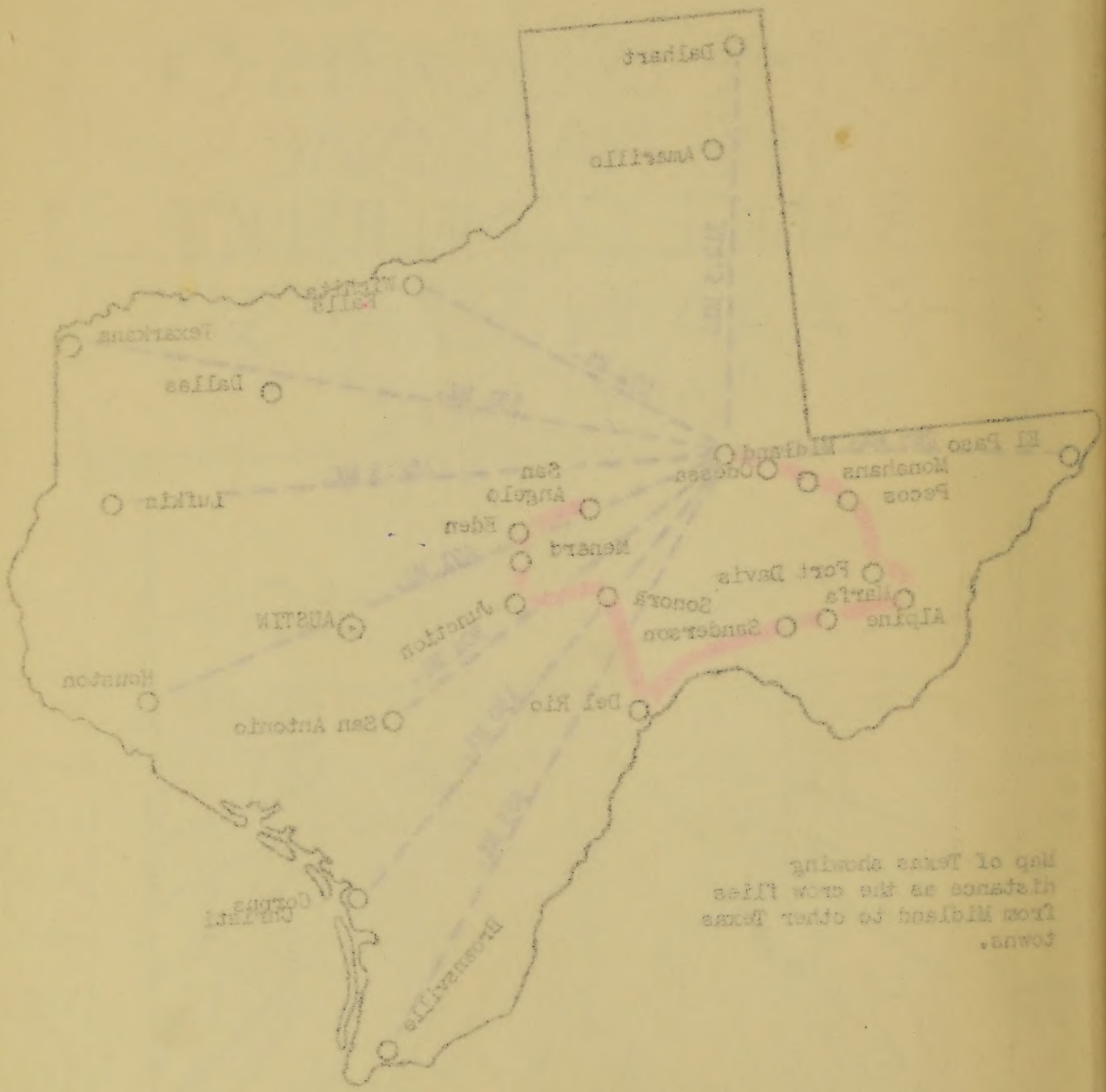


Map of Texas showing distance as the crow flies from Midland to other Texas towns.



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WELCOME TO TEXAS

We, the representatives of the Agricultural Adjustment Administration in Texas, welcome you to the 1940 National Range Conference. We are honored that Texas was selected as the host state for this important meeting and we are delighted with the opportunity to entertain you and discuss our common problems. We trust that your stay here will be both pleasant and profitable; it is a pleasure to have you with us and, again, we say

"WELCOME TO TEXAS."

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Howard T. Kingsbery	Donald L. Cothran	Charlie L. Thomas
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INTRODUCTION

This travelog represents the efforts of the representatives of the State A.A.A. office of Texas to bring together significant information that will serve to acquaint the members of this conference with the problems confronting the Texas ranchmen in the conservation of their range lands.

It is also our purpose to give the delegates and visitors of this conference an opportunity to observe firsthand the practices which are being used under the provisions of the A. A. A. program to assist the ranchmen in conserving their soil, water and grass. Due to the variety of soil and climatic conditions over Texas, it is impossible to see a cross-section of the State in a small area. Therefore, this tour of approximately 800 miles has been arranged through one of the principal ranching areas of Texas.

The first few pages of this travelog will give important general information concerning Texas and its ranching industry, the magnitude of conservation problems, important factors relating to the area such as rainfall, length of growing season, type of vegetation, livestock population, and other information necessary in appraising the adaptability of A.A.A. range conservation efforts as well as a brief summary of the extent that conservation practices have been put in operation by the ranchers.

Because of the length of the route and the short time allotted the conference, it has been necessary to limit the number of stops and to eliminate many points of interest along the route. Summaries and maps have been prepared on each county through which the tour passes, giving factual information on the range situation and the extent of range conservation practices.

It is suggested that members of the conference note the line of tour on the State map in this travelog to fully acquaint themselves with the different natural regions through which the tour passes and study the county maps and related data concerning the county and range program to more fully understand the range situation along the route.

We trust that the subject matter on each county will serve to acquaint you with the type of country through which you are traveling and give you an opportunity to more fully evaluate the effectiveness of the range conservation practices which have been used.

E. N. Holmgreen
Administrative Officer in Charge

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ACKNOWLEDGMENT

We wish to take this opportunity to express our appreciation to the ranchmen of the State and all local, State and Federal agencies in Texas who have contributed factual data and information, or who have otherwise aided in preparing the travelog for the 1940 National Range Conference Tour.

We also desire to express our appreciation to the individuals and cities along the route, who have contributed so generously to make this tour both pleasant and profitable.

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TEXAS RANGES

The ranching industry in Texas has been a tremendous factor in producing wealth not only for Texas but for the entire nation. Since the days of the early Spanish explorers, Texas ranchers have produced livestock as economically as has any other region in the world. This was possible because of the excellent fertility of the soil and the wide variety of palatable grasses.

About 550 species of native grasses are found in Texas, approximately one-half of the total of 12 hundred species found in the United States. There are within the bounds of Texas representatives of the thirteen of the fourteen great tribes of grasses found in the United States, indicating the large variety resulting from the wide range of climatic and soil conditions. Three-fourths of all species of grasses found East of the Rocky Mountains are found in Texas. The mesquite and grama tribes of grasses have probably been of greatest economic consequence among the native wild grasses covering Northwestern, Western and South Central Texas. They have been of inestimable value to the livestock men.

Ranching has become more a specialized industry since the days of the Longhorn. Ranchmen today find it necessary to care for the ranches, study their grassland, and decide how many head of livestock it will feed. They give thought to the topography of their land in order to find locations where they need to construct spreader dams and spreader terraces for better water utilization and erosion control. They observe closely the distance their cattle must walk for water so they may construct watering places at the proper locations.

The ranchmen in some sections of Texas today are confronted with the encroachment of noxious plants and weeds, many of which are of little value and some of which are even poisonous to livestock.

The A.A.A. range program, through its numerous practices, is designed specifically to assist the ranchmen of the country in their efforts to control erosion and obtain the greatest degree of conservation.

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The A.A.A. range program, through its numerous practices, is [illegible] specifically to assist the ranchmen of the country in their [illegible] to control erosion and obtain the greatest degree of conservation [illegible]

With a cattle population amounting to 10 percent of the total number in the United States, Texas can well claim the title of the "greatest cattle state in the Nation." For Texas ranges today are stocked with 6,677,000 head of cattle, one-tenth of the 68,769,000 in the country. At that her cattle population today is slightly lower than it was in 1935 when 7,222,000 head roamed the ranges, comprising 11 percent of the nation's cattle.

From this tremendous supply of cattle, Texas annually slaughters— on the farm and in local slaughterhouses — around 400,000 head. But those figures fail to show the real production of the Texas ranges, for millions of head are shipped out of the State annually to the feed lots and grasslands of the Northern states and to the big slaughterhouses in Northern cities. In 1928, 1,648,000 head were shipped; in 1934, 1,721,000 head; in 1938, 2,535,000 head.

By far the most popular breed on the Texas range is the Hereford which is equally at home in the Panhandle and West Texas, on the Gulf coast and on the pastures of East Texas. But Texas ranchmen do not have one-track minds — their choices in cattle are varied. On Texas ranges you find many herds of Aberdeen-Angus, Shorthorn, Devon, Brahma, Red Polled, Galloway and Africander cattle.

Moreover, you will find one breed which is strictly a product of Texas — the cross-bred Brahma X Shorthorn Santa Gertrudis, or Santa Gertrudis for short. The breed was developed in the vicinity of Kingsville, Texas, on the King Ranch. For twenty years the King Ranch bred and cross-bred Shorthorns and Brahmas before developing a strain which the breeders consider an economical producer of beef. The Santa Gertrudis, peculiarly adapted to the climatic conditions of South Texas, is composed of approximately five-eights Shorthorn and three-eights Brahma.

The sheep population of Texas is even greater and constitutes a larger portion of the United States total than the cattle. Today 10,069,000 sheep, 18 percent of the 54,473,000 in the United States, are grazing on Texas ranges. From these sheep Texas produces 17 percent of the country's wool, 77,290,000 pounds of the 441,897,000 pounds produced in 1939. So important is the Texas wool industry that a grade of wool, "Texas Fine," was developed here.

Most popular breed of sheep is the Rambouillet, followed by the Hampshires, Shropshires, Delaine, Southdown and Corriedale. The number of sheep on Texas ranches, as well as the production of wool, has tripled during the past twenty years, outranking by far the increase in the cattle industry.

Peculiarly adapted for goat-raising, Texas supplies 85 percent of the United States production of mohair. The goat population of the State numbers 3,300,000 and this year produced 15,960,000 pounds of the Nation's 18,709,000 pounds of mohair. The Edwards Plateau region holds a monopoly on mohair within the State since practically the entire industry is located in that region and the lower brush country.

With a cattle population amounting to 18 percent of the total [illegible] in the United States, Texas can well claim the title of the [illegible] cattle state in the Nation. For Texas ranges today are [illegible] in the country. At that her cattle population today is slightly lower than it was in 1935 when 7,222,000 head roamed the ranges, comprising 11 percent of the nation's cattle.

From this tremendous supply of cattle, Texas annually slaughters [illegible] the farm and in local slaughterhouses -- around 4,000,000 head. But these figures fail to show the real production of the Texas ranges, for millions of head are shipped out of the State annually to the local lots [illegible] of the Northern states and to the big slaughterhouses in Northern cities. In 1935, 1,[illegible] were shipped; in [illegible] head; in 1938, 2,325,000 head.

By far the most popular breed on the Texas range is the Hereford [illegible] is equally at home in the Panhandle and West Texas, on the Gulf [illegible] and on the pastures of East Texas. But Texas ranchmen do not have one-track minds -- their choices in cattle are varied. On Texas ranches you find many herds of Shorthorns, Brahmas, Santa Gertrudis, Brahmas, Angus, Polled, Galloway and Africander cattle.

Moreover, you will find one breed which is peculiarly a product of Texas -- the cross-bred Brahma X Shorthorn Santa Gertrudis, or South Gertrudis for short. The breed was developed in the [illegible] of Texas, on the King Ranch. For twenty years the King Ranch bred and cross-bred Shorthorns and Brahmas before developing a strain which the Ranchers consider an economical producer of beef. The South Gertrudis, peculiarly adapted to the climatic conditions of South Texas, is composed of approximately five-eights Shorthorn and three-eights Brahma.

The sheep population of Texas is even greater and constitutes a larger portion of the United States total than the cattle. Today 10,[illegible] sheep, 18 percent of the 51,427,000 in the United States, are grazing on Texas ranges. From these sheep Texas produces 17 percent of the country's wool, 77,[illegible],000 pounds of the 444,847,000 pounds produced in 19[illegible]. The [illegible] importance to the Texas wool industry that a grade of wool, "Texas [illegible]" has developed here.

Next popular breed of sheep is the Rambouillet, followed by the Hampshires, Dorsets, Southdowns, Shropshires and Corriedales. The sheep of sheep on Texas ranches, as well as the production of wool, has declined during the past twenty years, surrendering to Texas increases in the cattle industry.

Peculiarly adapted for goat-raising, Texas supplies 85 percent of the United States production of mohair. The goat population of the State numbers 2,[illegible],000 and their year produced 12,[illegible],000 pounds of the 18,[illegible] [illegible] made out in the State since primarily the cattle industry is important in that region and the larger breed country.

It is the purpose of the Texas Agricultural Conservation Committee to assist the ranchmen of Texas in using the practices provided for under the terms of the range conservation program in the best way possible to assist in maintaining and restoring the fertility of the range lands of the State. It is fully realized that no one of the various practices will accomplish this purpose alone. However, for the ranchman who is interested in preserving the fertility of his soil and increasing the carrying capacity of his range, the practices available can be used to institute a system of ranch management which will be profitable immediately. Range conservation is also of tremendous importance to the Nation as a whole in conserving the range lands as a source of future meat supply for the country.

In order that you may fully realize the extent which these practices have been used on Texas ranches, we are listing below the practices which have been carried out under the program for 1937, 1938, and 1939:

Practice	1937	1938	*1939
	(Acres)	(Acres)	(Acres)
Reseeding by deferred grazing	3,716,560	4,814,249	5,295,673
Artificial reseeding	None	66,635	73,298
Contour listing or furrowing	17,608	71,330	78,463
Elimination: prickly pear and cactus	999,145	1,419,424	1,561,366
Elimination of mesquite	109,361	141,716	155,887
Elimination of cedar	469,809	585,174	643,691
Elimination of lechuguilla	42,816	68,876	75,763
Eradication of rodents	884,222	None	None
Tree planting	None	1,743	1,917
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	1,193,336	1,304,188	1,434,606
Earthen tanks and reservoirs	16,717,653	17,249,411	18,974,352
Concrete or rubble masonry dams	None	61,984	68,182
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development of natural watering places	None	40,412	44,453
	(Linear ft)	(Linear ft)	(Linear ft)
Contour ridging	19,205,113	54,604,230	60,064,653
Spreader terraces	2,145,413	6,079,181	6,687,099
Wells	None	497,054	546,759
Establishment of fireguards	5,799,861	11,932,650	13,125,915
	(Rods)	(Rods)	(Rods)
Range fences	422,429	None	None

*1939 figures are estimated.

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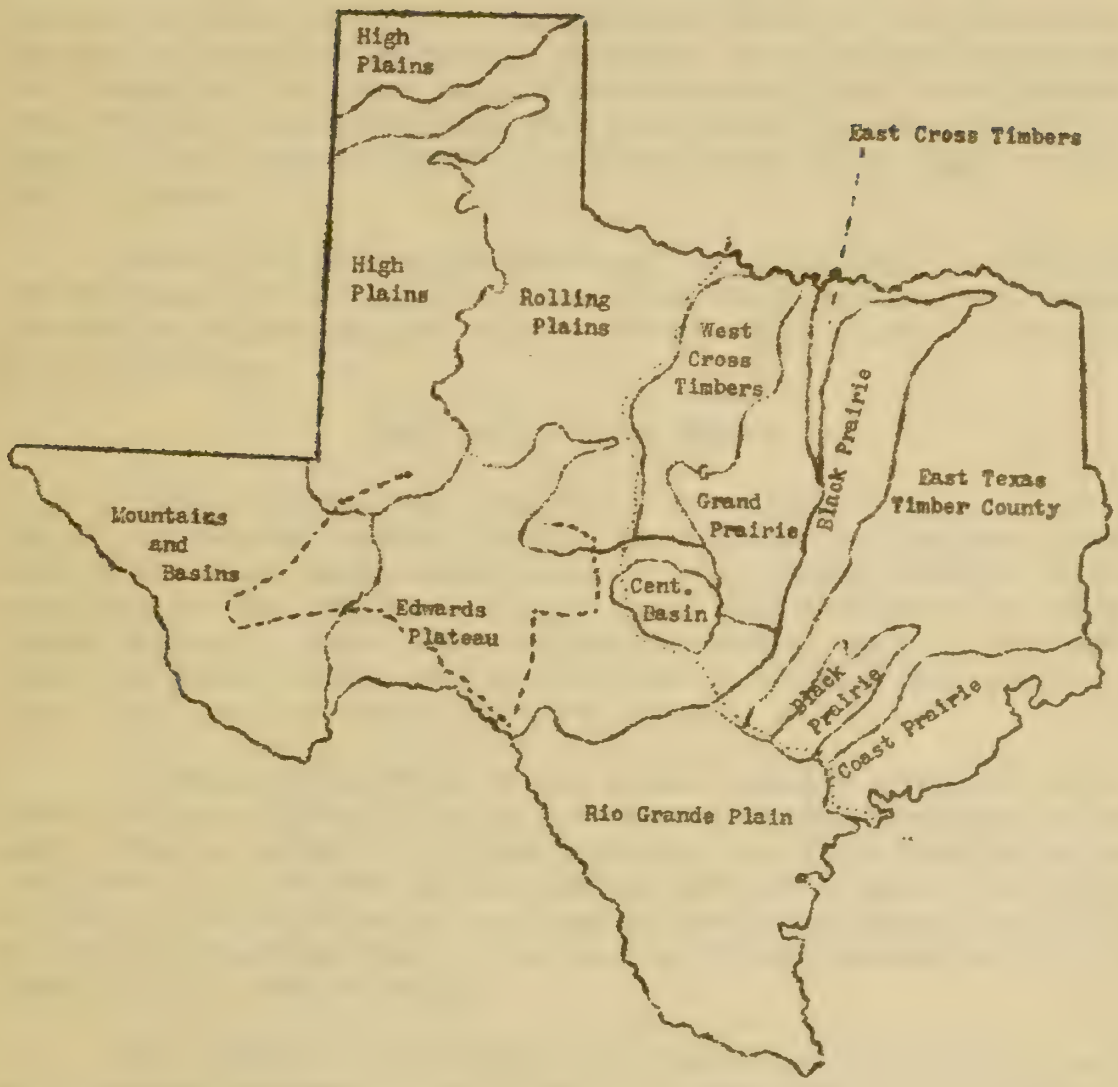
Practice	1937	1938	1939
[illegible] by deferred grazing	3,716,560	4,214,320	5,295,[illegible]
[illegible] rest rotation grazing	None	66,005	79,[illegible]
[illegible] planting or furrowing	17,602	71,370	95,[illegible]
[illegible] prickly pear and cactus	249,145	1,414,324	1,901,[illegible]
[illegible] of mesquite	100,361	144,716	144,[illegible]
[illegible] of cedar	400,000	594,[illegible]	[illegible]
[illegible] of lechuguilla	4,[illegible]	64,[illegible]	[illegible]
[illegible] of rodents	284,[illegible]	None	None
[illegible]	None	1,743	1,[illegible]
	(Cubic yds.)	(Cubic yds.)	(Cubic yds.)
[illegible] reservoir dams	1,142,326	1,340,168	1,[illegible]
[illegible] tanks and reservoirs	16,771,651	17,[illegible]	[illegible]
[illegible] rocks or rubble masonry dams	None	[illegible]	68,[illegible]
[illegible] improvements of natural watering places	None	[illegible]	[illegible]
	(Linear ft.)	(Linear ft.)	(Linear ft.)
[illegible]	12,205,[illegible]	54,[illegible]	[illegible]
[illegible] water terraces	2,[illegible]	[illegible]	[illegible]
[illegible]	None	[illegible]	[illegible]
[illegible] planting of livestocks	3,[illegible]	11,[illegible]	11,[illegible]
[illegible]	(Rods)	(Rods)	(Rods)
[illegible]	[illegible]	None	None

[illegible] figures are estimated.



Natural Geographic Divisions of Texas. Dotted line separates the two major soil groups of the state. Reference: Texas Experiment Station Bulletin No. 431.

PHYSIOGRAPHY

Soil and water conservation on Texas ranches and the effectiveness of the AAA range program as a means of conservation can be more fully evaluated if the natural physiographic regions and their subdivisions are considered.

Texas is divided into four natural regions -- the coastal plains, prairies, great plains and mountain-basin. These are naturally subdivided on a basis of distinctive features of relief, soil and native vegetation. The names of these subregions are common to farmers and ranchmen of Texas as well as agricultural workers since they are named for some outstanding geographic feature. These subregions are as follows: Gulf Coast Prairie, East Texas timber country, East Cross timbers, Blackland Prairies, Grand Prairie, West Cross timbers, Central Basin, Rio Grande Plain, Edwards Plateau, Rolling Plains, High Plains and the Mountain-Basin region.

Since FOUR of the subregions of the State will be visited by the delegates of the National Range Conference perhaps some condensed information regarding the regions through which we will travel would be of interest.

SOUTH HIGH PLAINS REGION

Midland County, the starting point of this tour, and Ector County, the second county visited, are situated in the most southern part of the High Plains area; however, they perhaps are not representative of the region as a whole since this section of the High Plains begins to merge with the Edwards Plateau region. The High Plains of Texas include all or parts of 46 counties and comprise a total land area of about 21 million acres.

Although the surface of the plains appears level, it has a general slope of from 10 to 15 feet per mile from northwest to southeast. The elevation of this area ranges from 3,000 feet in the southeast part to 4,500 feet in the extreme northwest part. The surface of the plains is pitted by many small lake basins from 10 to 20 feet deep and containing from 5 to 40 acres. Stream dissection is slight except in the eastern border.

The rainfall of the High Plains area varies from 20 to as low as 15 inches per year. The rainfall is irregular but as a rule it is heaviest during spring and summer months.

The soils of the High Plains, texturally, are divided into two general divisions; the heavy soils, mostly clay loams, located mainly in the northern section, and the light soils, sand and fine sandy loams, confined chiefly to the southern and western parts.

In addition to ranching, wheat and other small grains, grain sorghums and cotton are important crops of the area. The northern portions of the region, occupied by heavy soil, is a typical short grass country. It has a heavy growth of buffalo grass with some blue grama. The southern part of the region, mainly of sandy loam, is composed principally of black and hairy grama, the needle grasses, blue stem or sage grass, some buffalo with cat claw and shin oak shrubs, and in some sections small mesquite tree growth.

[illegible]

Soil and water conservation on Texas ranches, and the effectiveness of the AAA range program as a means of conservation can be more fully assessed if the natural [illegible] and their [illegible] divisions are considered.

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Since FSCA of the subregions of the State will be studied by the subregions of the National Range Conservation Committee [illegible] information regarding the various [illegible] which is only [illegible] to be interpreted.

SOUTH HIGH PLAINS REGION

Hockley County, the southing point of this report, and Scurry County, the second county visited, are situated in the east southern portion of the High Plains. Many geologic and [illegible] characteristics of the region as a whole since this section of the High Plains of Texas includes all or parts of 40 counties and comprises a total land area of about 21 million acres.

Although the surface of the plains appears level, it has a general slope of from 10 to 15 feet per mile from the west to the east. The elevation of this area ranges from 3,000 feet in the southeast part to 4,500 feet in the extreme northwest part. The surface of the plains is plain or gently rolling [illegible] except in the eastern border.

The rainfall of the High Plains ranges from 20 to 30 inches per year. The rainfall is irregular but as a rule it is heaviest during spring and summer months.

The soils of the High Plains, texturally, are divided into two general divisions; the heavy soils, mostly clay loams, located mainly in the northern section, and the light soils, sand and fine sandy loams, confined chiefly to the southern and western parts.

In addition to roughage, wheat and other small grains, grain sorghums and cotton are important crops of the area. The northern portion of the region [illegible] grass country. It has a heavy growth of buffalo grass with some blue grass. The southern part of the region, mainly of sandy loam, is composed principally of bluestem and heavy grass, the needle grasses, blue stem or sage grass, some buffalo with out stem and skin oak shrubs, and in some sections small mesquites have grown.

MOUNTAIN-BASIN REGION
- Mainly Trans-Pecos Area -

The second region visited by the delegates of the National Range Conference is the Mountain-Basin area of the Trans-Pecos country, starting at Ward County. This large area is different from any other part of the State. This area covers all or part of 17 counties in Texas and consists of over 17 million acres.

There are three principal mountain ranges crossing this area from northwest to southeast and extending to the Republic of Mexico. El Capitan peak believed to be the highest in the region is 9,020 feet. The surface of the almost flat basins and plains section has an elevation of 2,500 to 4,000 feet above sea level with adjacent mountains and roughlands reaching heights to as much as 9,000 feet.

The rainfall of the Mountain-Basin area is varied. In the eastern part of the region the average annual rainfall is about 14 to 15 inches while in the Davis Mountains area it is about 17 inches a year.

Cattle ranching is the principal industry over the region, but sheep and goat ranching is important. The ranching units in this region are usually large. An exceptionally high grade type of cattle is produced in the Davis mountains area. Large areas are devoted to irrigation farming along the Rio Grande and Pecos rivers and around Fort Stockton. Cotton, alfalfa, feeds, vegetables and fruits are produced.

There is a variety of soils in this area of clay, clay loams, sandy loams, gravely soils and alluvial soils. The types of soils and the rainfall of the particular area are reflected in the types of native vegetation. These plants range from some that are found in the eastern part of the State to those common only in the arid and semi-arid sections.

This region is characterized by the nutritious gramas on the slopes and by tobosa and burro of grasses in the flats. Woody plants and shrubs consisting of cat claw, creosote bush, black brush, buckthorn, allthorn, mesquite, yucca, sotol, sacahuista and cactus.

Control of storm water coming from higher regions into the plains and valleys through a system of terraces and dams has been effective as practiced by ranchmen of this region. Where such has been done the palatable grasses have grown to meadow proportions and serve as a means of erosion control.

EDWARDS PLATEAU REGION

Immediately upon leaving Brewster County the Conference will pass into a region of Texas known as the Edwards Plateau. All or portions of 43 counties are in this great area covering approximately 22,500,000 acres of land. The general region slopes to the east and some of the western portion lies 4,000 feet above sea level while most of it is over 2,000 feet.

Climatic differences have resulted in the development of a variety of soils in the different sections of the Edwards Plateau. Some of

the areas are clay and clay loam with considerable sections of alluvial soils. The region also has sandy and stony soils.

The rainfall varies from 15 inches on the western side of the region to as much as 30 inches in the eastern section. The central portion of the area usually receives from 20 to 25 inches of rainfall each year.

The Edwards Plateau is one of the principal sheep and goat ranching sections of Texas. Cattle ranching also is important in the area.

Some sections of the region porduce cotton, small grain, grain sorghums and other crops. Native grasses are principally grama, curly mesquite, buffalo, and needle. In addition, various shrubs and plants are found, such as live oak, shin oak, cat claw, sumac, sacahuista, sotol, guijillo, mesquite, cedar, ceniza, yucca, buckthorn, cactus and lechuguilla. A large variety of palatable weeds, especially valuable in sheep and goat production, are present.

ROLLING PLAINS REGION

The National Range Conference tour is concluded by traveling through Concho and Tom Green Counties which are situated in the southern part of the Rolling Plains area. These counties are not wholly typical of the Rolling Plains since they are in the region where the Rolling Plains merge with the Edwards Plateau and central basin, consequently they have features characteristic of the three regions.

This Rolling Plains region occupies all or part of some 58 counties and has a total area of about 24½ million acres. The general regional slope is from west to east. The elevation above sea level is from 1,000 feet to as much as 3,000 feet.

The average annual rainfall of the region is from 25 to 27 inches, but the western part of the region averages as low as 22 inches annually. There are wide varieties of soils in this region ranging from clays, clay loams, sandy, sandy loams, stony soils and alluvial soils.

In addition to being a great ranching section, this is an important farming area of Texas and produces large quantities of cotton, wheat, oats, barley, grain sorghums, corn and other crops. Cattle and sheep ranching are the most important types of ranching in this region.

The natural vegetation of the Rolling Plains consists of a varied growth differing from place to place according to soils and surface conditions. Over much of the area, especially in the heavier soils, buffalo, mesquite and grama grasses are dominant species. In the sandier soils, grama, blue stem and needle grasses, as well as other palatable grasses, are abundant. Trees and shrubs of the range sections are mesquite, live oak, shin oak, late sumacs, cat claw, prickly pear and others.

BEGINNING OF TOUR

Starting point - Court House, Midland, Texas

Hour of Departure - 7 A.M., June 25, 1940

NOTE:

> Instructions to drivers and other information pertaining to the route of travel will be found throughout the travelog. Change in highways and stops along the route will be found enclosed in a "box."

The mileage in this log is cumulative each day of the trip separately, as follows:

June 25 - Midland to Marfa

June 26 - Marfa to Del Rio

June 27 - Del Rio to San Angelo

It is suggested that the drivers of cars on this tour take notice of the mileage prepared in the log and set their speedometers accordingly, or make such notations that will give them an opportunity to observe the points of interest mentioned. Little difficulty should be experienced in keeping fairly accurate speedometer readings.

If state highway markers are observed upon leaving one county and entering another, the points of interest may be accurately located by use of the log.

[illegible]

[illegible]rting point - Court house, Midland, Texas

[illegible]our of departure - 7 A.M., June 25, 1940

[illegible]

Instructions to drivers and other information particular to the route of travel will be found throughout the itinerary. Change in highways and stops along the route will be found enclosed in a "box."

[illegible]e mileage in this log is cumulative each day at the city appropriately [illegible]

[illegible]

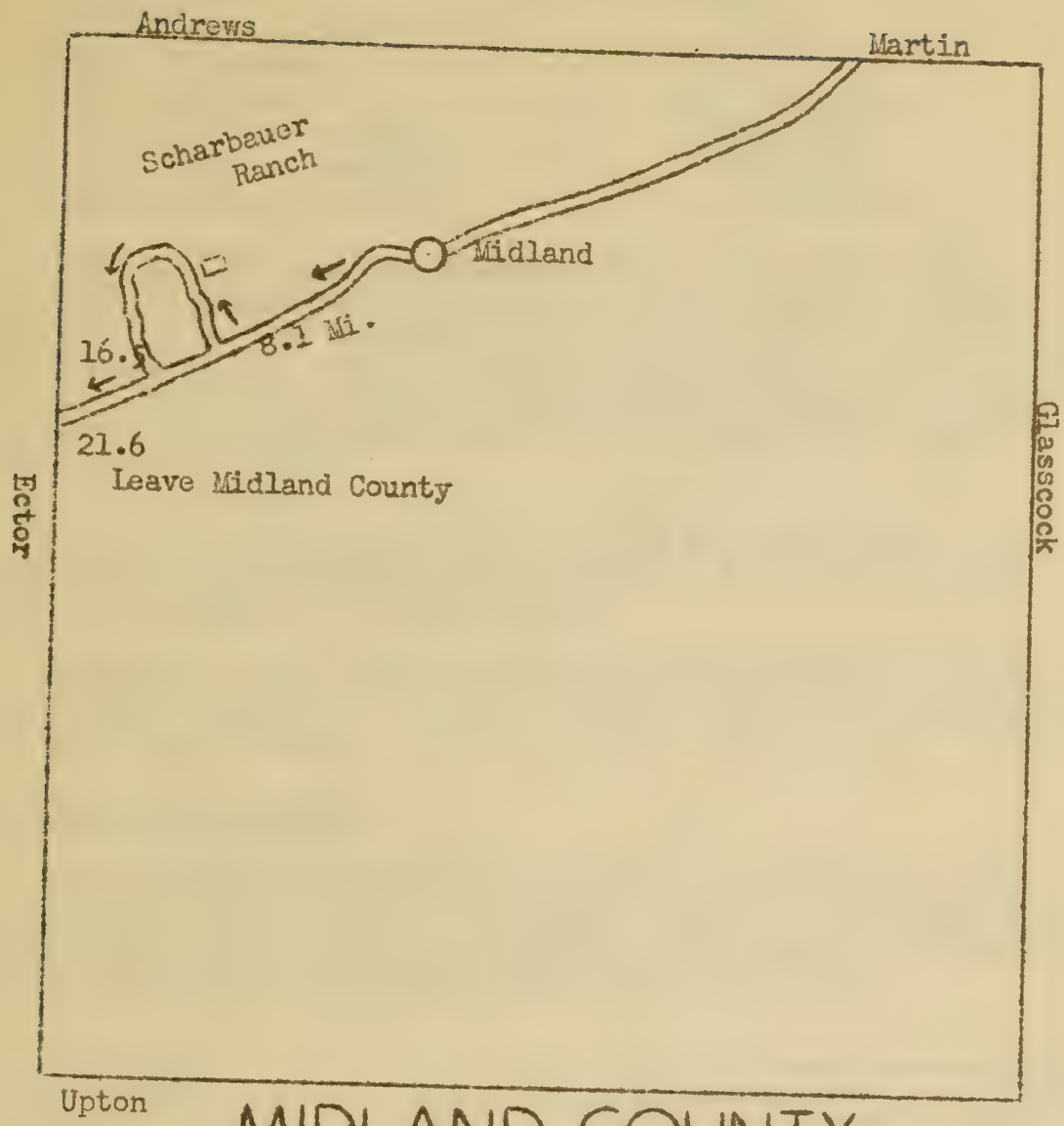
June 25 - Midland to Marfa

June 26 - Marfa to Del Rio

June 27 - Del Rio to San Angelo

It is suggested that the drivers of cars on this tour take notice of the mileage provided in the log and set their speedometers accordingly, [illegible] such notations that will give them an opportunity to observe [illegible] [illegible] ... experienced in keeping fairly accurate speedometer readings.

If state highway markers are observed upon leaving one county and entering another, the points of interest may be accurately located by use of the log.



MIDLAND COUNTY

MIDLAND COUNTY

General Information:

Area in square mile	887
Population	14,200
Population per square mile	11.9
Number of ranches	18
Total range land	739,763 acres*
Average size of ranches	18,043 acres
Elevation above sea level	2,800 feet
Average annual rainfall	17.5 inches

Midland county, on the southern border of the south high plains, was created and organized in 1885 from Tom Green county. Named for its location is the City of Midland, which is approximately half-way between Fort Worth and El Paso, Texas. Midland, county seat, is a wholesale and retail center with a leather goods industry, a chemical plant and an oil tool assembling plant, and it is an important West Texas headquarters for oil companies.

Most of the soil of Midland county is fine sandy loam. The vegetation on range land consists of mesquite, tallow weed, grama, buffalo grass, needle, cat-claw and sage.

On Midland county ranges approximately 18,000 head of cattle and 27,000 sheep are grazing — 90 percent of the cattle in the county are of the white-faced variety.

Range Conservation Program

Since the Range Conservation Program started in 1937, interest in conservation work has mounted steadily. In the 1940 program the sign-up of Midland county ranchmen is practically 100 percent. A summary of work done under the range programs is listed below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	173,198	747,226	743,143*
Reseeding by deferred grazing	20,420	60,871	52,859
Artificial reseeding	-	-	4,900
Contour furrowing and listing	225	6,560	17,679
Elimination: Prickly pear & cactus	-	960	2,811
Elimination of mesquite	20	1,764	804
Eradication of rodents	2,735	-	-
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	-	-	1,818
Earthen tanks and reservoirs	-	140,939	114,429
Concrete or rubble masonry dams	-	60	-
	(Linear ft)	(Linear ft)	(Linear ft)
Contour ridging	-	1,071,360	-
Wells	-	4,300	4,412
Fireguards	479,160	3,370,930	388,080
	(Rods)	(Rods)	(Rods)
Range fences	5,040	-	-

*Apparent discrepancy due to ranches running over county lines.

[illegible]

General Information

Area in square miles	887
Population	14,000
Population per square mile	1.9
Number of ranches	32
Total range land	790,760 acres
Average size of ranches	16,042 acres
Elevation above sea level	2,800 feet
Average annual rainfall	[illegible] inches

Midland county, on the southern border of the south high plains, was created and organized in 1885 from Tom Green county. Named for its location, is the City of Midland, which is approximately half-way between Fort Worth and El Paso, Texas. Midland, county seat, is a wholesale and retail center with a leather goods industry, a chemical plant and a small local cottonseed oil mill. It is an important West Texas headquarters for oil companies.

Most of the soil of Midland county is fine sandy loam. The vegetation on range land consists of mesquite, tallow weed, grama, buffalo grass, needle, cut-leaf and sage.

In Midland county ranges approximately 18,000 head of cattle and 27,000 sheep are grazing — 70 percent of the cattle in the county are of the white-faced variety.

Range Conservation Program

Since the Range Conservation Program started in 1937, interest in conservation work has mounted steadily. In the 1940 program the sign-up of Midland county ranchmen is practically 100 percent. A summary of work done under the range program is listed below:

Practice	1940	1939	1938
	(Acres)	(Acres)	(Acres)
Range land	173,198	74,226	74,140*
Reseeding by deferred grazing	[illegible]	[illegible]	[illegible]
Structural practices	-	-	4,900
Contour furrowing and listing	225	6,560	12,[illegible]
Eradication: Prickly pear & cactus	-	960	2,011
Eradication of mesquite	20	1,[illegible]4	804
Construction of reservoirs	4,735	-	-
	(Number pit)	(Number pit)	(Cubic yds)
Spreader dams	-	-	1,816
Contour banks and terraces	-	140,739	144,489
Construction of pitted stock tanks	-	60	-
	(Linear ft)	(Linear ft)	(Linear ft)
Contour plowing	-	1,071,360	-
Stubble mulching	-	-	[illegible]
Fencing	40,100	3,370,230	388,000
	(Acres)	(Acres)	(Acres)
Range improvement	[illegible]	[illegible]	[illegible]

*Temporary due to massive munching over county lines.

MIDLAND COUNTY

0.0 From Scharbauer Hotel, leave Midland on Highway 80.

8.1 Turn right across cattle guard, Scharbauer ranch.

9.1 Headquarters Scharbauer ranch. Pass through corrals and veer to northwest.

9.9 Go through green gate.

10.5 Pass through steel gate. Proceed northwest.

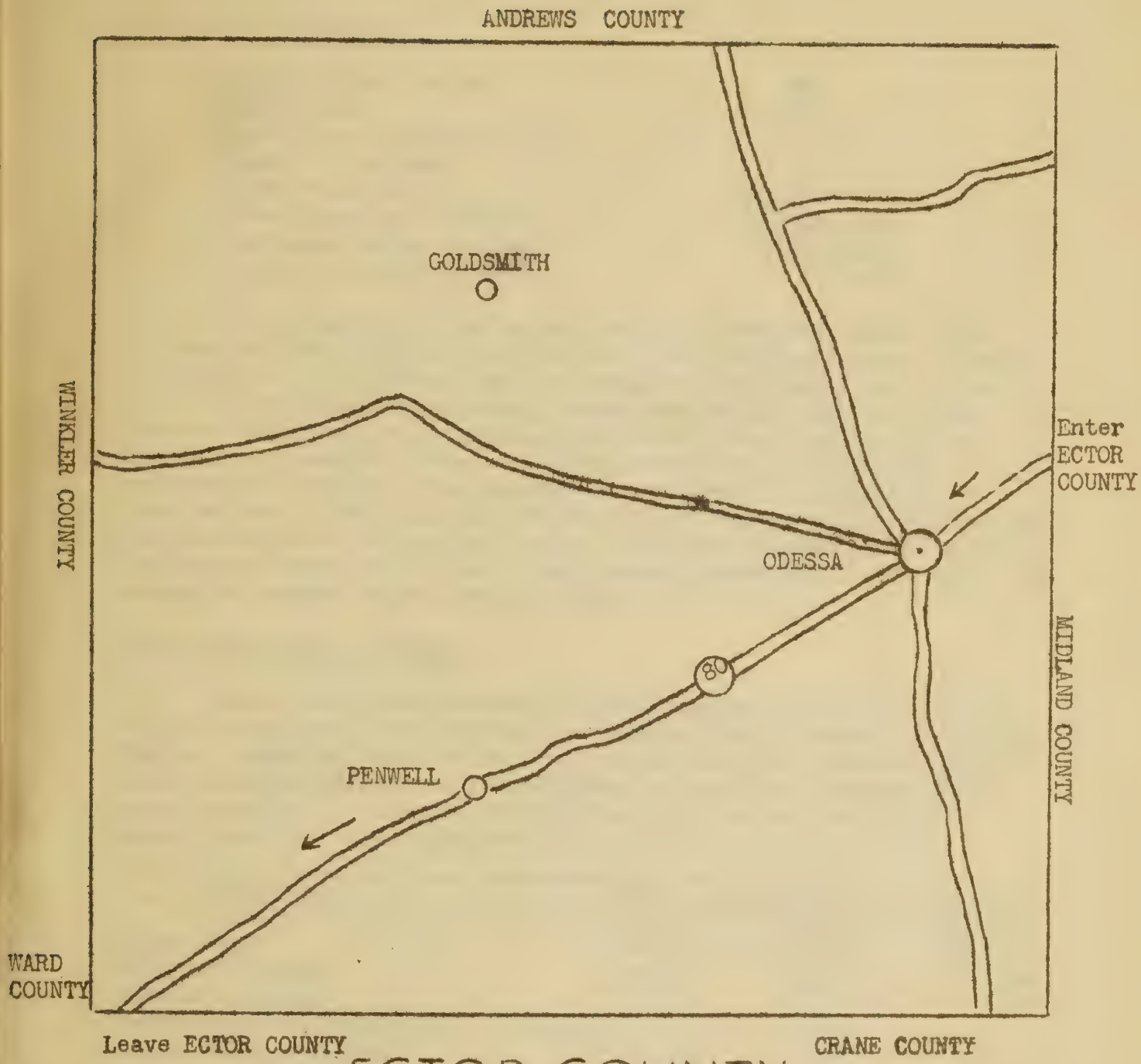
11.1 Note contour furrow, completed in fall of 1939. All the rain they have received has fallen in last four weeks. This section has been extremely dry.

11.4 Note perennial broomweed which has been constantly crowding the grass.

12.4 Turn left at windmill and note contour furrows on both sides of road.

16.5 Leave Scharbauer ranch and turn west on Highway 80.

21.6 Enter Ector County.



ECTOR COUNTY

ECTOR COUNTY

General Information:

Area in square miles	892
Population	19,000
Population per square mile	21.3
Number of ranches	30
Total range land	560,000 acres
Average size of ranches	18,866 acres
Elevation above sea level	2,800 feet
Average annual rainfall	18 inches

Ector county, on the South Plains of Northwest Texas, was created in 1887 from Tom Green county. Land of the county is level to gently rolling plains with soil ranging from sandy loam to deep sand. Black grama, blue grama, tobosa and buffalo are the chief grasses with mesquite, chemiza, skin oak and sand sage providing browse for livestock. Nearly all the farm land in the county is in pasture for grazing. The raising of pure-bred and high-grade Hereford cattle utilizes most of the Ector county area. About 16,000 cows are kept on the county ranches with about 12,000 calves reaching the market every year. Sheep have become increasingly important, numbering at present approximately 5,000.

Range Conservation Program

Ector county's conservation problems are similar to those of Midland county with the emphasis on construction of water facilities. Surface tanks and water wells have earned the major portion of the range-building allowance with deferred grazing also constituting a major practice. A summary of the practices carried out in Ector county under the range program is listed below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	360,034	453,711	390,061
Deferred grazing	22,590	74,494	20,626
Contour ridging	-	-	80
Eradication of prickly pear & cactus	-	1,280	-
Eradication of rodents	106,531	-	-
Eradication of mesquite	440	300	200
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	-	-	772
Earthen tanks and reservoirs	55,375	46,800	55,953
	(Linear ft)	(Linear ft)	(Linear ft)
Wells	-	2,628	3,085
Fireguards	746,880	1,003,200	-
	(Rods)	(Rods)	(Rods)
Range fences	640	-	-

Area in square miles	809
Town added	17,366
Population per square mile	21.9
Number of ranches	36
Total range land	560,000 acres
Average size of ranches	15,000 acres
Elevation above sea level	2,000 feet
Average annual rainfall	18 inches

Butler County, on the South Plains or Northwest Texas, was created in 1887 from Tom Green county. Land of the county is level or gently rolling plains with soil ranging from sandy loam to deep black prairie, blue grass, bahaan and buffalo are the chief grasses with mesquite, cholla, sand-oak and sage providing forage for livestock. Nearly all the farm land in the county is in pasture for grazing. The raising of pure-bred and high-grade Hereford cattle predominates most of the Butler country area. About 15,000 head are kept on the county ranches with about 12,000 calves reaching market every year. Sheep have become increasingly important, numbers of product [illegible] 5,000.

[illegible]

Lubbock County with the exception of construction of water facilities, [illegible] tanks and water wells have caused the major portion of the [illegible] production. A summary of the production carried out in Lubbock [illegible]

	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible] of probably pure 4 cactus	[illegible]	1,[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible] section of mesquite	[illegible]	[illegible]	[illegible]
	(Cubic [illegible])	(Cubic yds)	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible] tanks and reservoirs	36,375	6,[illegible]	[illegible]
	(Lineal ft)	(Lineal ft)	(Lineal ft)
[illegible]	[illegible]	3,[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

ECTOR COUNTY

21.6 Enter Ector County.

26.3 Enter the city limits of Odessa.

54.1 Leave Ector County.

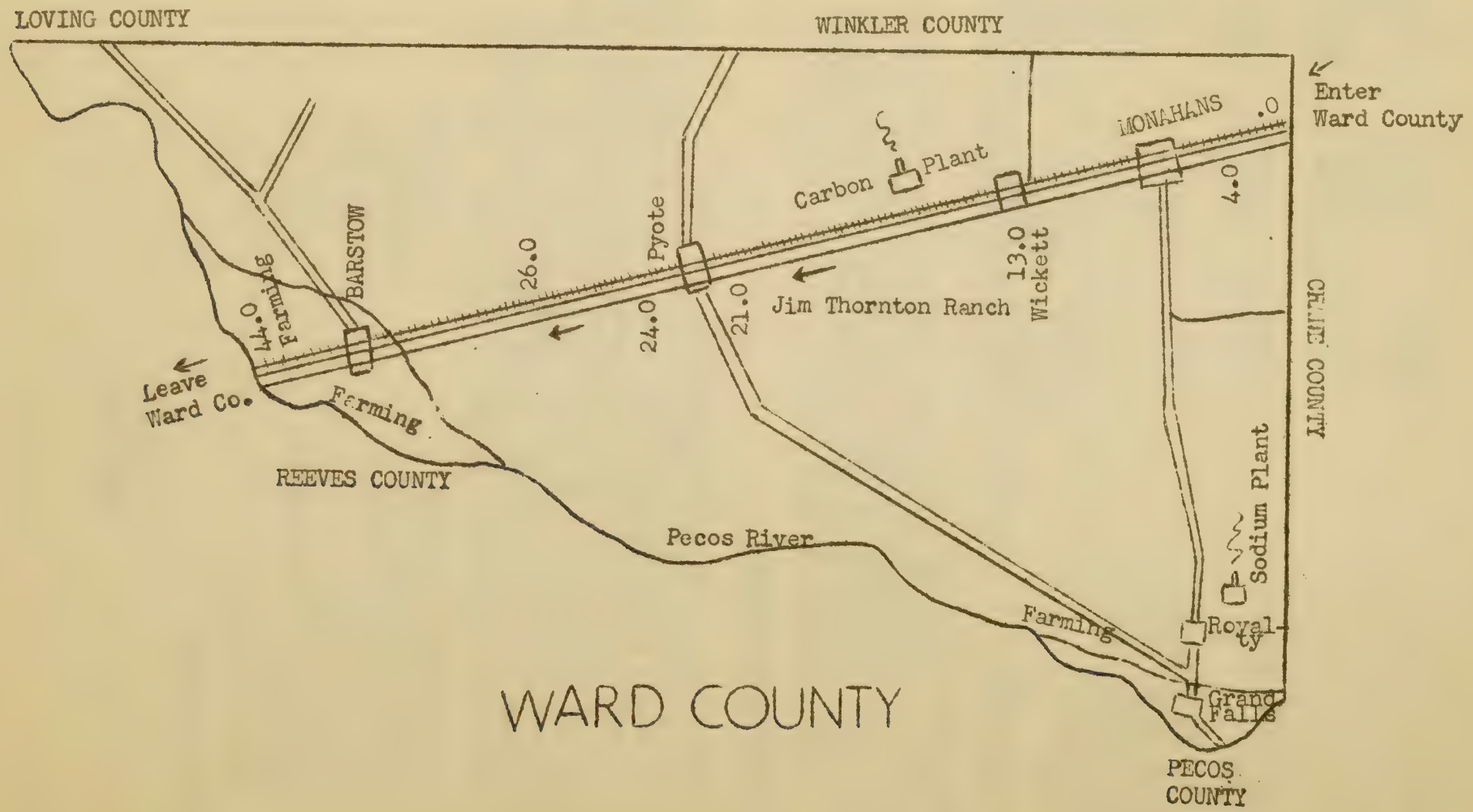
CRANE COUNTY

54.1 Enter Crane County

55.1 Turn right, cross railroad track to view Glen Allen Ranch home and inspect some Hereford cattle.

This ranch consists of 33,950 acres of range land. Mr. Allen has carried out the following practices under the A. A. A. range program: Drilled 6 wells, constructed one earthen tank of 1615 cubic yards of dirt, eradicated 25 acres of mesquite and seeded 300 acres of range land with adapted varieties of range grass.

55.6 Leave Crane County. Enter Ward County.


LOVING COUNTY
WINKLER COUNTY
Enter
Ward County
MONAHANS
.0
4.0
Carbon
Plant
13.0
Wickett
Jim Thornton Ranch
21.0
Pyote
24.0
26.0
BARSTOW
44.0
Farming
Leave
Ward Co.
Farming
REEVES COUNTY
Pecos River
Farming
Sodium Plant
Royal-
ty
Grand
Falls
PECOS
COUNTY
CRANE COUNTY
WARD COUNTY

WARD COUNTY

General Information:

Area in square mile	827
Population	11,700
Population per square mile	14.2
Number of ranches	18
Total range land	337,260 acres
Average size of ranches	18,737 acres
Elevation above sea level	2,600 feet
Average annual rainfall	12 inches

Ward county was created in 1887 from Tom Green county, and is about midway between San Angelo and El Paso. It is one of the leading oil counties with extensive livestock industry. The types of soil in the county are sandy, Reeves, loam and sandy loam. Grasses are blue grama, black grama, side oats grama, hairy grama, tobosa, and filaree. Mesquite brush and cat-claw affords browse. With beef cattle production as its major industry, Ward county has an estimated 10,300 head -- principally Hereford. Registered bulls are run with all herds in the county and each herd has a few registered cows.

Range Conservation Program

Deferred grazing and construction of water facilities have enabled ranchmen in Ward county to earn the bulk of money available under the Range Conservation Program. Contour furrowing is rapidly becoming a more widely-used practice. Cooperation with the program is 100 percent. A summary of work done in 1937, 1938 and 1939 under the range program is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	363,403	199,806	305,596
Deferred grazing	58,100	28,090	57,318
Artificial reseeding	0	0	5,228
Contour furrowing	0	0	2,980
Elimination of mesquite	0	0	10
Eradication of rodents	91,520	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Earthen tanks or reservoirs	44,093	7,543	7,992
	(Linear ft)	(Linear ft)	(Linear ft)
Wells	0	2,646	1,583
Fireguards	0	110,880	0
	(Rods)	(Rods)	(Rods)
Range fences	5,078	0	0

[illegible]

[illegible] Inventory:

Area in square miles	897
Population	11,700
Population per square mile	14.9
Number of ranches	18
Total ranch land	327,000 acres
Average size of ranches	18,700 acres
Elevation above sea level	2,000 feet
Average annual rainfall	22 inches

Ward county was created in 1897 from Ion Green county, and is about midway between San Angelo and El Paso. It is one of the [illegible] counties. The types of soil in the county are sandy, loam and sandy loam. Grasses are blue grass, silver grass, side oats grama, hairy grass, tobosa, and [illegible]. Mesquite brush and cat-claw [illegible] browse. With most [illegible] production on the [illegible], most ranchs can be estimated in [illegible] head -- principally Hereford. Registered bulls are run with all herds in the county and each herd has a few registered cows.

[illegible] Improvement Program:

Deferred grazing and construction of water facilities have [illegible] ranchmen in Ward county to earn the bulk of money available [illegible] the longer [illegible] frequent. Because [illegible] is [illegible] is 100 percent. A summary of work done in 1937, 1938 and 1939 under the range program is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
[illegible] land	34,402	199,865	300,[illegible]
Deferred grazing	58,100	28,990	[illegible]
Artificial reseeding	0	0	5,000
Contour furrowing	0	0	2,500
Eradication of mesquite	0	0	10
Eradication of redberry	91,500	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Stock tanks [illegible]	[illegible]	[illegible]	[illegible]
	(Linear ft)	(Linear ft)	(Linear ft)
Dikes	0	4,600	1,[illegible]
Terraces	0	110,080	0
Stage [illegible]	[illegible]	[illegible]	[illegible]

WARD COUNTY

55.6 Enter Ward County. The principal soil type is the Enterprise sand group which runs from the county line into Monahans. This area is the best ranching section in Ward County because of the ability of the soil to hold moisture for a long period of time. The ranch on both sides of the highway is owned by Earl Vest. Ranch headquarters are in Winkler County.

59.6 John Edwards ranch to the south; Jim Tubb ranch to the north. Range conservation practices best adapted to this area are deferred grazing and the drilling of wells. Some mesquite eradication work is being done. Both ranches extend to the city limits of Monahans. On the Edwards ranch 4 wells with a total depth of 584 feet have been drilled and 10 acres of mesquite eradicated.

62.8 City limits of Monahans.

70.1 City limits of Wickett.

70.3 George W. O'Brien's 80-section ranch runs north of Wickett. Mr. O'Brien has carried out the following practices under the range program:

Deferred grazing	25,600 acres
Artificial reseeding	2400 pounds of seed on 2720 acres
Contour furrowing	1,360 acres
Wells	5 wells for 767 feet
Eradication of prairie dogs	1,280 acres

77.6 Limits of Pyote. South of the highway from Wickett to 5 miles west of Pyote is the ranch of Jim Thornton. South of the stock pens at Pyote, on the left side of the road, can be seen some contour furrowing which was done in 1939 on an experimental basis. Only a small portion of the ranch was contour furrowed to determine whether such work constituted a good practice for this section of the state. The results have been favorable. During recent rains, no water was allowed to run off from the furrowed section. Soil, water and grass seed which otherwise would have been washed into sink holes was held in the furrows. Since entering the program, Mr. Thornton has completed the following work:

Deferred grazing	9,840 acres
Artificial reseeding	1,200 pounds of seed on 2240 acres
Tanks	3 for 5,606 cubic yards
Wells	3 for 518 feet
Eradication of prairie dogs	2,170 acres
Contour furrowing	2,270 acres

Ward County. The principal soil type is the Ashportrae sand grass which runs from the county line into Monahans. This area is the best ranching section in Ward County because of the ability of the soil to hold moisture for a long period of time. The ranch on both sides of the highway is owned by Earl Weck. Ranch headquarters are in Winkler County.

John Edwards ranch to the south; Jim Tubb ranch to the north. Range conservation practices best adapted to this area are deferred grazing and the drilling of wells. Some reseeding conservation work is being done. Both ranches extend to the city limits of Monahans. On the Edwards ranch 4 wells with a total depth of 524 feet have been drilled and 10 acres of reseeded [illegible].

City Limits of Monahans.

[illegible]

George W. O'Brien's 80-section ranch runs north of Pyote. Mr. O'Brien has carried out the following practices under the range [illegible]

[illegible]
Artificial reseeding....2000 pounds of seed on 2720 acres
[illegible]
Eradication of prairie dogs.....[illegible] acres

Limits of Pyote. Strip of the highway from Monahans to 3 miles west of Pyote in the ranch of Jim Thornton. South of the school park at Pyote, on the left side of the road, can be seen some contour furrowing which was done in 1939 on an experimental basis. Only a small portion of the ranch was contour furrowed to determine whether such work constituted a good practice for this section of the state. The results have been favorable. During recent rains, no water was allowed to run off from the furrowed section. Soil, water and grass seed which otherwise would have been washed into sink holes was held in the furrows. Since contouring the property, Mr. Thornton has completed the following work:

[illegible]
Contour furrowing.....[illegible]
[illegible]
[illegible] of seed on 2140 acres
[illegible]
[illegible]
Eradication of prairie dogs.....[illegible] acres
[illegible]

79.6 Jim Thornton ranch. This open flat surface country has many large cavities into which the water rushes, taking along soil and grass seed.

81.6 Pat Wilson ranch. Mr. Wilson has completed the following practices:

Deferred Grazing.....23,760 acres
Artificial reseeding....460 pounds of seed on 42 acres
Tanks.....3 for 5733 cubic yards
Wells.....2 for 395 feet

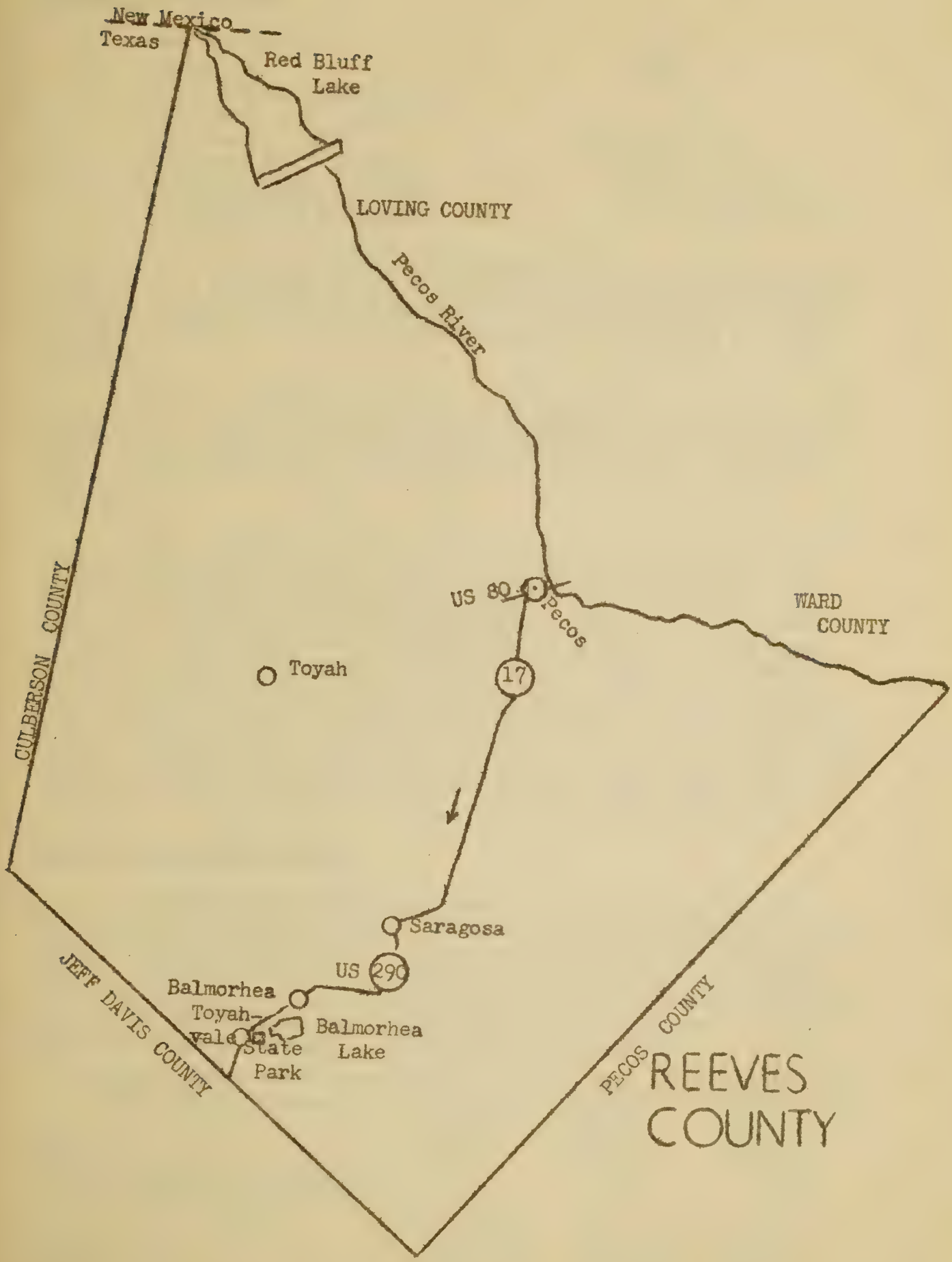
His ranch runs from the 26.0 mile reading to Barstow on the north of the highway.

83.6 Charles H. Miller ranch to the south. Mr. Miller was in the program for the first time in 1939. Already under the 1940 program he has completed one tank which is full of water. Practices completed by him include:

Artificial reseeding....875 pounds of seed on 750 acres
Contour furrowing.....750 acres
Tanks.....2 for 3825 cubic yards

94.1 Barstow. From Barstow to the county line of Reeves County, Ward County is entirely a farming section.

99.6 Leave Ward County. Enter Reeves County.


New Mexico
Texas
Red Bluff
Lake
LOVING COUNTY
Pecos River
US 80
Pecos
WARD
COUNTY
Toyah
17
CULBERSON COUNTY
Saragosa
US 290
Balmorhea
Toyah-
vale
State
Park
Balmorhea
Lake
JEFF DAVIS COUNTY
PECOS COUNTY
REEVES
COUNTY

REEVES COUNTY

General Information:

Area in square miles	2,781
Population	8,000
Population per square mile	2.9
Total number of ranches	50
Total range land	1,754,840 acres
Average size of ranches	35,000 acres
Elevation above sea level	2,500 - 4,500 feet.
Annual average rainfall	14 inches

Entering Reeves county on the East travelers cross the Pecos river about 1 mile east of the City of Pecos. From the town of Pecos highways rediate to Carlsbad Cavern about 90 miles north, to El Paso 210 miles west, to the Davis mountains and Big Ben region 50 miles Southwest.

Normally stocked with 50,000 head of cattle, 10,000 sheep and 1,000 horses, Reeves county is adapted to the production of stocker cattle rather than to the production of breeding stock. Few registered cattle are run but practically all cattle in the county are good Herefords.

Soils in Reeves county are deep river silt, confined to the Pecos valley area, and clay loam on the prairies and sandy loam on slopes. The slopes of the mountains provide most of the good grazing area and are used exclusively for ranching. Generally distributed throughout the county, and especially on the slopes, are blue grama, black grama, side oats grama, and hairy grama. Alkali sacation is generally distributed over the prairies, while tobosa grass occupies the low heavy "flats." Filaree provides excellent forage during the rainy seasons. Chamiza, the gray desert shrub about 2 feet high, can be seen on both sides of the road over most of the county. It is an excellent browse having a palatability rating almost equal to that of alfalfa. Mesquite brush and cat claw provide excellent browse.

Range Conservation Program

With the topography of the county peculiarly adapted to the construction of large systems of spreader dams and terraces, emphasis in the range program has been on these practices. Wide valleys have made it possible to utilize spreader systems to the utmost. Wells, tanks and deferred grazing are also important to the county. 96 per cent of the ranchmen cooperate with the program. A summary of the practices carried out under the program is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	816,404	1,085,390	1,354,429
Deferred grazing	100,666	190,323	255,763
Contour listing and furrowing	0	0	626
Eradication of rodents	110	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	32,348	58,773	76,981
Tanks and reservoirs	103,844	168,481	113,876

[illegible]

[illegible]

[illegible]

Reeves County
Page 2

Practice	1937	1938	1939
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Concrete or rubble masonry dams	0	47	0
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	30,891	0	0
Wells	0	3,783	4,224
Contour ridging	0	4,563,240	4,047,120
Fireguards	0	0	52,800
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development of natural water places	0	1,111	12,150
	(Rods)	(Rods)	(Rods)
Range fences	14,200	0	0

REEVES COUNTY

100.8 Enter city limits of Pecos on Highway 80.

101.2 Turn left off of Highway 80 at Gulf Service Station.

101.5 Go two blocks. Chuck Wagon Dinner at Legion Hall, on left, as guests of Reeves County ranchmen. Reeves County Court House on right.

101.5 Leave Chuck Wagon, go west one block.

101.6 Turn right and go two blocks.

101.7 Turn left on U. S. Highway 80.

103.1 Turn left on State Highway No. 17 to Fort Davis.

131.3 Entering Balmorhae. Irrigated valley.

132.0 Turn left continuing on Highway 17.

134.7 Turn right on U. S. Highway No. 290.

136.1 State Experiment Station on left. Davis Mountains in background.

141.6 Enter city limits of Balmorhea.

145.3 State Park on the left.

145.8 Turn left on State Highway No. 17.

148.7 Leave Reeves County and enter Jeff Davis County.

[illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] Turn left off of Highway 80 at Gulf Service Station.

[illegible].5 Go two blocks. Chuck Wagon Diner at Legion Hall, on left, as guests of Reeves County rancheros. Reeves County Court House on right.

[illegible] Leave Chuck Wagon, go west one block.

[illegible] Turn right and go two blocks.

[illegible].7 Turn left on U. S. Highway 80.

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] Entering Balmorhea. Irrigated valley.

[illegible] Turn left continuing on Highway 17.

[illegible].7 Turn right on U. S. Highway No. 290.

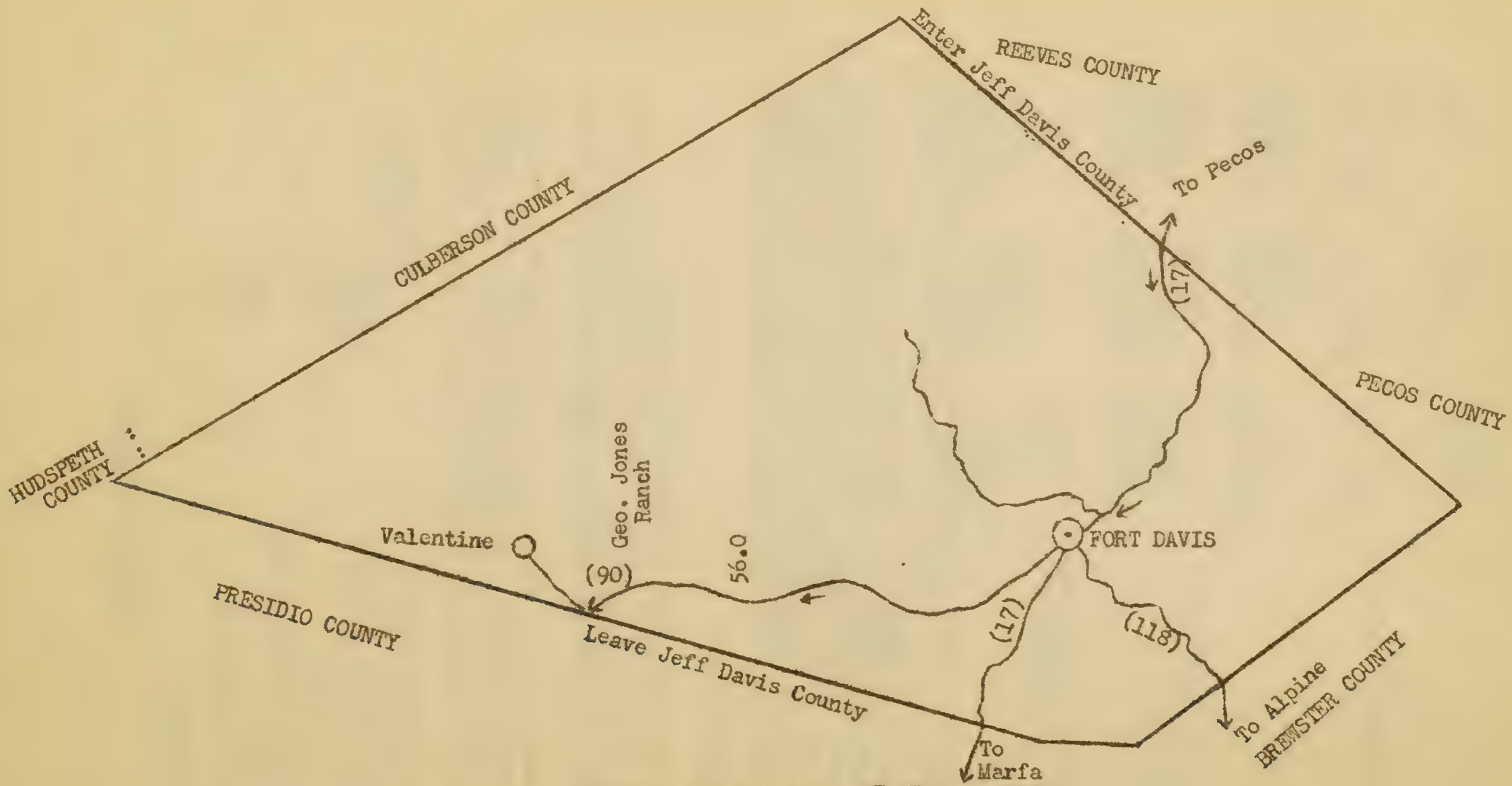
[illegible].1 State Experiment Station on left. Davis Mountains in background.

[illegible] Enter city limits of Sulphurous.

[illegible] State Park on the left.

[illegible] Turn left on State Highway No. 17.

[illegible].7 Leave Reeves County and enter Jeff Davis County.



JEFF DAVIS COUNTY

JEFF DAVIS COUNTY

General Information:

Area in square miles	2,263
Population	1,800
Population per square mile	.8
Number of ranches	53
Total range land	1,752,207
Average size of ranches	34,985
Elevation above sea level	3,500 - 8,785 feet
Annual average rainfall	16.16 inches

Strictly a mountainous county, Jeff Davis has more mountains within its borders than any other county in the State. The range is known as the Davis Mountains. On Mount Locke at Fort Davis, county seat, is the new $1,000,000 University of Texas McDonald Observatory.

The soil is rocky and silty with some caliche and is covered with blue, black and side oats gramas and tobosa. Approximately 63,500 cattle, 2,010 horses, 73,000 sheep and 4,125 goats are stocked in the county with nine herds of registered Herefords.

Range Conservation Program

With every ranchman in the county cooperating with the Range Conservation Program, tremendous advances have been made in improving the county's range lands. The biggest problems are water utilization and water storage. Spreader dams, rock headers, wells and rubble masonry dams are numerous throughout the county. There is listed below a summary of the practices carried out under the range program:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	1,494,450	1,845,774	1,748,903
Deferred grazing	61,544	15,040	33,545
Contour listing and furrowing	132	-	-
Elimination: Prickly pear & cactus	3,015	-	4,700
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader Dams	182,306	267,559	212,033
Tanks and reservoirs	467,317	373,284	255,153
Concrete or rubble masonry dams	-	42,012	3,321
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	50,458	3,286	5,086
Wells	-	2,699	8,210
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development of natural watering places	-	-	1,567
	(Rods)	(Rods)	(Rods)
Range fences	12,312	-	-

Area in square miles	2,263
Population	1,[illegible]
Population per square mile	.8
[illegible]	[illegible]
Total range land	1,769,207
Average size of ranches	34,[illegible]
Elevation above sea level	3,500 - 6,785 feet
[illegible]	[illegible]

Strictly a mountainous county, Jeff Davis has more mountains within its borders than any other county in the State. The range is known as the Davis Mountains. On Mount Locke at Fort Davis, county seat, is the new 82,000,000 University of Texas McDonald Observatory.

The soil is rocky and silty with some caliche and is covered with blue, black and side oats grasses and tobosa. Approximately [illegible] in the county with nine herds of registered Hereford[illegible].

[illegible]

With every rancheman in the county cooperating with the Range Conservation Program, tremendous advances have been made in improving the county's range lands. The biggest problems are water utilization and water storage. Spreader dams, rock berders, wells and mobile measuring [illegible] are numerous throughout the county. There is listed below a summary of the practices carried out under the range program.

	(Acres)	(Acres)	(Acres)
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible] Listing and Furrowing	122	-	-
[illegible]ishment: Prickly pear & cactus	3,015	-	4,700
	(Cubic yds.)	(Cubic yds.)	(Cubic yds.)
[illegible] spreader dams	182,300	247,519	212,000
[illegible] and reservoirs	4[illegible],212	370,[illegible]	295,129
[illegible] or rubble masonry dams	-	42,012	3,281
	(Linear ft.)	(Linear ft.)	(Linear ft.)
[illegible] spreader terraces	50,[illegible]	4,[illegible]	5,000
[illegible]lls	-	[illegible]	8,212
	(Cubic ft.)	(Cubic ft.)	(Cubic ft.)
[illegible]ment of natural watering [illegible]			
	(Heads)	(Heads)	(Heads)
[illegible]	12,312	-	-

JEFF DAVIS COUNTY

148.7 On this route we travel through the Limpia Canyon of the Davis Mountains on Highway 17.

177.7 City of Fort Davis.

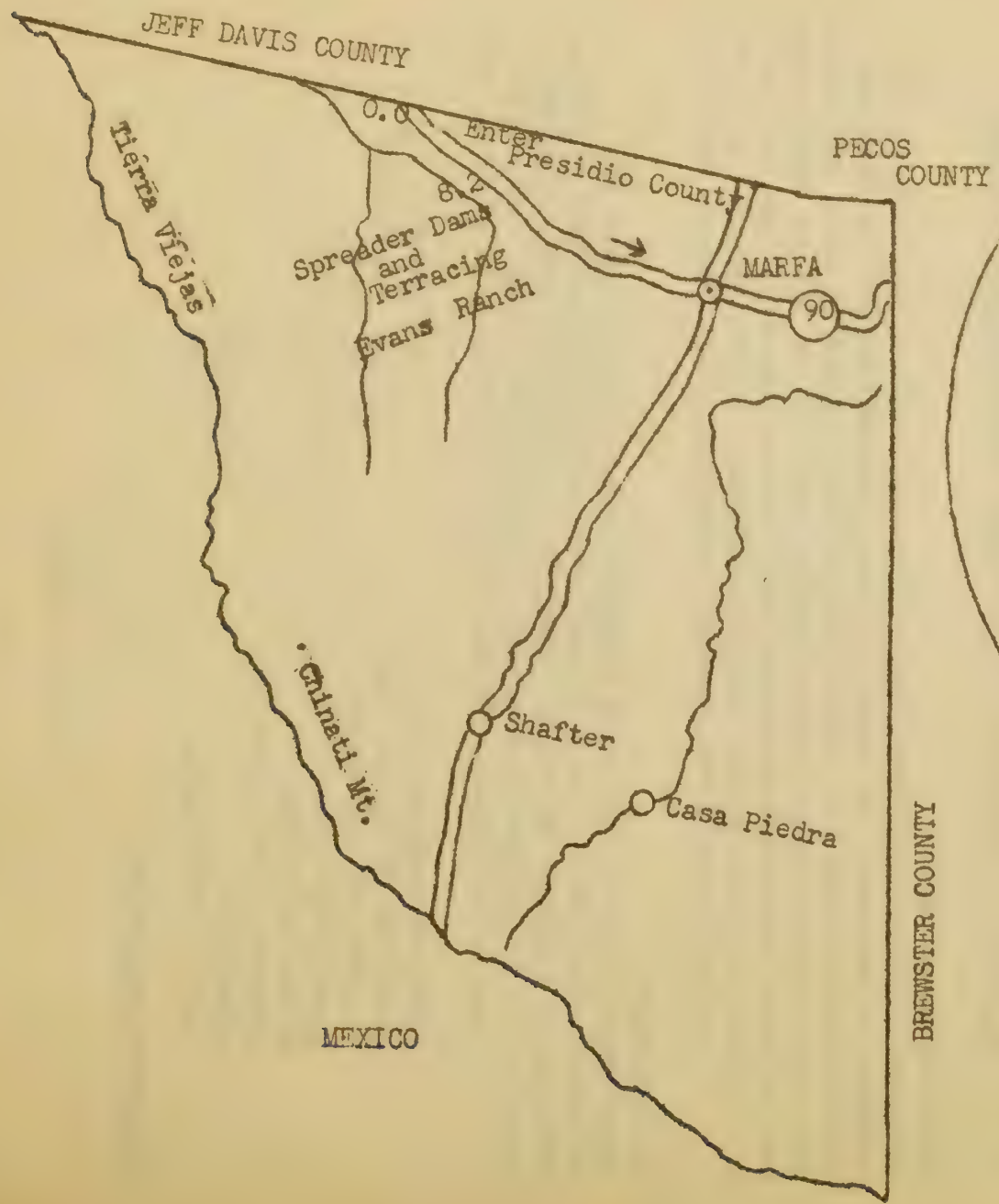
203.0 Enter George Jones Ranch. When crossing cattle guard entering Mr. Jones' ranch, we notice the fence on right being a dividing line between green cactus on the east side and dead cactus on the west. The dead cactus was sprayed with arsenic pentoxide.

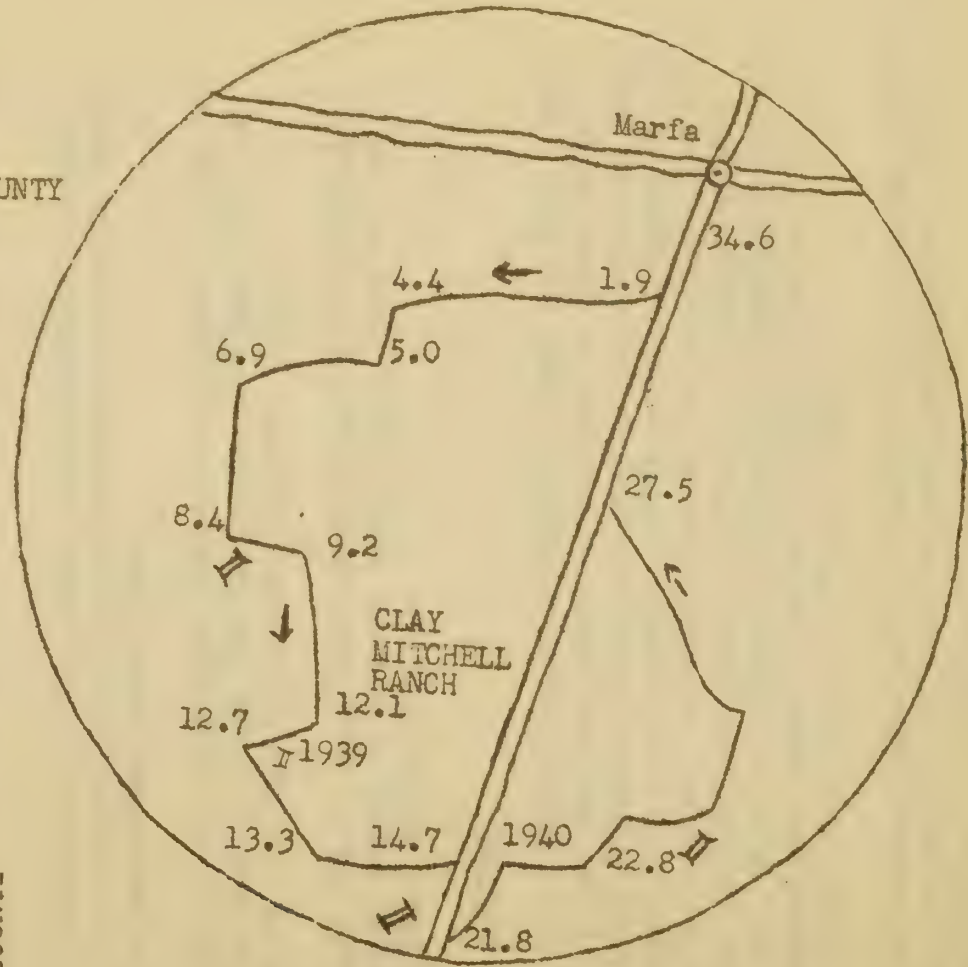
This ranch consists of 111,380 acres of range land on which Mr. Jones has constructed 450 spreader dams which consist of 93,507 cubic yards of dirt and spreads water over approximately 12,000 acres of range land. Mr. Jones has constructed 2 earthen tanks which consist of 5038 cubic yards of dirt, constructed 12,580 linear feet of spreader terraces, constructed 2 rubble masonry dams consisting of 387 cubic yards of material, and has eradicated 750 acres of cactus.

205.7 (Stop). Spreader dam system.

210.5 (Stop). Spreader dam system.

216.1 Cross railroad, turn left on Highway 90, leave Jeff Davis County.





PRESIDIO COUNTY

WITH PORTION OF COUNTY TO BE VISITED IN CONNECTION WITH THE SURVEY OF THE NATIONAL RANGE CONFERENCE

PRESIDIO COUNTY

General Information:

Area in square miles	3,812
Population	12,220
Population per square mile	3.1
Number of ranches	108
Total range land	2,428,680 acres
Average size of ranches	22,400 acres
Elevation above sea level	2,000 - 7730 feet
Annual average rainfall	14 inches

Part of the famous Highland country, Presidio county points with pride to its 46,000 Hereford cattle, its registered herds, constantly improved in 40 years of careful breeding. Most of the bulls from the registered herds go to local buyers, but the Highland Hereford Breeders' Association auctions and fairs attract buyers from California to Pennsylvania.

In 1938 producers of Brewster, Jeff Davis and Presidio counties, which comprise the Highland country, organized the Assocation. Their aim was to become acquainted with corn belt feeders, establish the quality and merit of their cattle in the public mind, and cut out the middle man. Tours, auction sales, and entries in the great feeder shows of the country resulted in success. The term "Highland" was copyrights; the Highland Fair was organized; Highland cattle dominated many of the great feeder shows of the country.

With 21,000 sheep and 10,000 goats on the range in Presidio county this year, this industry also is an important one to the county and is increasing in importance every year.

Horses, also, are an important product — a number of ranches maintaining breeding herds, mostly for cow ponies although there are several breeding herds for polo ponies and Palomino horses.

Soils include clays, loams and sandy soils and intermountain wash. Grasses consist mainly of gramas: blue, black, side oats and hairy, with some buffalo and sacahuista.

Range Conservation Program

Before the AAA program little conservation work had been done in Presidio county. What had been done was confined to stock water tanks, scattered small spreaders across old roads, and maintenance of some hospital pastures from which grazing was deferred. On most of the hilly terrain, the valleys are so narrow and the fall so great that it is difficult to plan spreader dams since there is so little room for water to spread. The region is subject to cloudburst conditions during the summer rainy season when several inches of water falls in a few minutes and great floods rush down the steep valleys.

Difficult to handle, also, are the sheet floods. Contour furrows and contour listing are helpful only on the more gently slopes. Dry winters and springs prevent the sodding of slopes.

Presidio County
Page 2

But conservation is gaining in Presidio County as the ranchmen realize the necessity for saving their rangelands. The record of the program since its beginning follows:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	1,413,319	1,480,296	1,552,053
Deferred grazing	78,201	70,670	38,224
Elimination of prickly pear and cactus	300	208	6,989
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	188,606	116,266	172,370
Tanks and reservoirs	278,164	360,836	176,770
Concrete or rubble masonry dams	0	689	2,166
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	18,888	3,172	100
Wells	0	2,534	10,834
	(Rods)	(Rods)	(Rods)
Range fences	8,600	0	0

PRESIDIO COUNTY

216.1 Enter Presidio County

224.3 The spreader dam system on the right is on the Worth Evans ranch. Mr. Evans' ranch consists of 32,000 acres of range land on which he has carried out the following practices under the A.A.A. range program: 91 spreader dams consisting of 30,439 cubic yards of dirt, 3100 linear feet of spreader terraces and 5 earthen dams consisting of 18,686 cubic yards.

243.1 Enter city of Marfa.

Wednesday, June 26th
(Start a cumulation of mileage from Marfa to Del Rio.)

0.0 Leave the city of Marfa.

1.9 South on Ruidosa Road, turn right, travel Ruidosa Road.

4.4 Turn left through gate, entering Clay Mitchell ranch, which consists of 20,982 acres of range land. Mr. Mitchell has carried out the following practices under the range program on his ranch; constructing 6 spreader dams which consist of 20,564 acres, and spread water over about 3,000 acres of range land. He has also constructed 1200 feet of spreader terraces, and one earthen dam which consists of 2464 cubic yards of dirt.

5.0 Angle southwest.

6.9 Turn left and go south.

8.4 See spreader dam.

9.2 Go around end of spreader dam.

12.1 Mitchell ranch headquarters.

12.7 See spreader dam.

13.3 Turn left and cross creek.

14.7 Leaving the Mitchell ranch, turn right on Presidio Highway.

21.8 Enter the Bogel ranch and observe spreader dam system. This ranch consists of 64,000 acres of range land on which the following range practices have been carried out: 92 spreader dams consisting of 72,349 yards of dirt which water about 10,000 acres of range land. Mr. Bogel also constructed 1,000 feet of spreader terraces and 6 earthen dams consisting of 16,763 cubic yards of dirt.

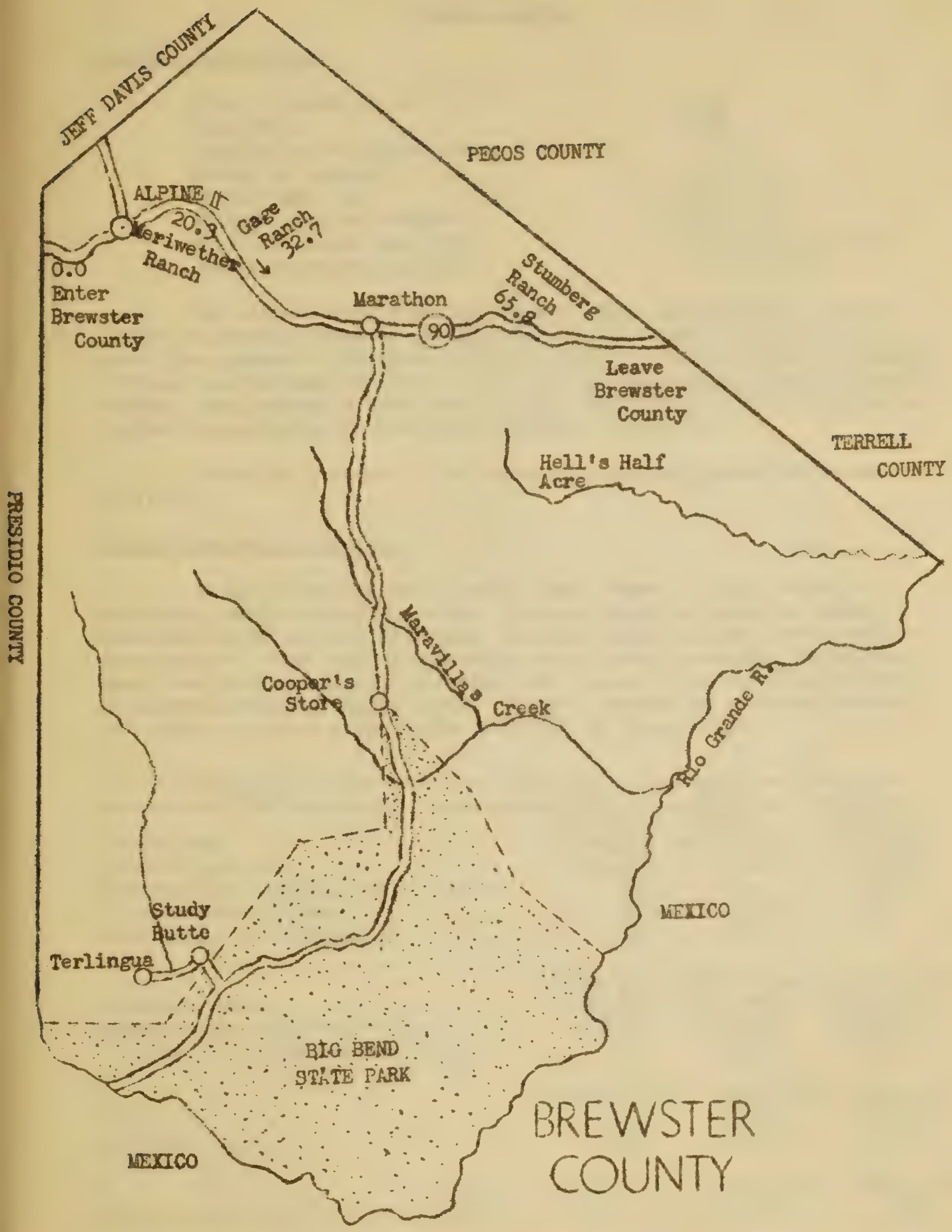
21.8 Leave this pasture, cross highway, and go through gate.

22.8 See spreader dam constructed in 1940.

27.5 Leaving Bogel ranch, proceed north to Marfa.

34.6 Marfa - Barbecue dinner, courtesy of Presidio County ranchmen.

40.6 Leaving Presidio County


JEFF DAVIS COUNTY
PECOS COUNTY
ALPINE
20.9
Meriwether Ranch
Gage Ranch 32.7
0.0
Enter Brewster County
Marathon
90
Stumberg Ranch 65.8
Leave Brewster County
TERRELL COUNTY
Hell's Half Acre
PRESIDIO COUNTY
Maravillas Creek
Cooper's Store
Rio Grande R.
MEXICO
Study Butte
Terlingua
BIG BEND STATE PARK
MEXICO
BREWSTER COUNTY

BREWSTER COUNTY

General Information:

Area in square miles	5,935
Population	6,910
Population per square mile	1.2
Number of ranches	140
Total range land	3,033,987 acres
Average size of ranches	21,670 acres
Elevation above sea level	1,700 - 4,500 feet
Annual average rainfall	14 inches

The largest county in the largest State in the Nation, Brewster County has an abundance of grazing land. Cattle, sheep, horses and goats are produced. Brewster is the third of the triumvirate of counties forming the Highland Hereford area. Much of the county is rugged, mountainous land, rising from a low of 1,700 feet along the Rio Grande to a plateau averaging 4,000 feet and peaks over 7,000 feet.

Principal grasses in the stony soil are the gramas with some buffalo.

Range Conservation Program

In this vast expanse of range land, there is ample room for extensive range-improvement work. Greatest need has been for water utilization and water facilities. Spreader dams, earthen tanks, rubble masonry dams, rock headers and wells are gaining increasing importance. Under the 1940 program 140 ranchmen have signed to do conservation work on approximately 3,033,987 acres. A brief summary of practices carried out under the range programs in 1937-1939 is listed below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	2,530,688	2,811,351	2,872,914
Deferred grazing	230,859	11,440	54,748
Elimination: Prickly pear & cactus	540	0	5,102
Elimination of cedar	819	2,560	0
Elimination of Lechuguilla	640	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	247,900	232,996	243,952
Earthen tanks and reservoirs	412,140	544,070	452,895
Concrete or rubble masonry dams	0	3,838	4,762
	(Linear ft)	(Linear ft)	(Linear ft)
Wells	0	5,138	10,282
Spreader terraces	35,099	3,348	0
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development: Nat'l watering places	0	1,012	374
	(Rods)	(Rods)	(Rods)
Range fences	4,864	0	0

[illegible]

[illegible]

Area in square miles	5,[illegible]
Population	6,[illegible]
Population per square mile	1.2
Number of ranches	140
Total [illegible]	[illegible]
Average size of ranches	21,000 acres
Elevation above sea level	4,700 - 4,500 feet
Annual average rainfall	14 inches

The largest county in the largest State in the Nation, Brewster County has an abundance of grazing land. Cattle, sheep, horses and goats are [illegible]. Brewster is the home of the [illegible] of [illegible] the [illegible] Trans-Pecos area. [illegible] of the [illegible] [illegible], mountainous land, rising from a low of 4,[illegible] feet along the [illegible] to a plateau averaging 4,000 feet and peaks over 7,000 feet.

Principal grasses in the stony soil are the grasses with some [illegible].

[illegible] Conservation Program

In this vast expanse of range land, there is ample room for [illegible] range-improvement work. Greatest need has been for water [illegible] and water facilities. Spreader dams, earthen tanks, rubble [illegible] dams, rock bunders and wells are gaining increasing importance. [illegible] the 1940 program 140 ranchmen have signed to do conservation work [illegible] approximately 3,033,987 acres. A brief summary of practices carried out under the range programs in 1937-1939 is listed below:

Practice	1937 (Acres)	1938 (Acres)	1939 (Acres)
[illegible] land	2,[illegible]	[illegible]	[illegible]
[illegible] grazing	[illegible]	[illegible]	[illegible]
[illegible]: Partially poor & cactus	540	0	5,102
Elimination of cedar	819	2,560	0
Elimination of [illegible]	640	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
[illegible]	[illegible]	[illegible]	[illegible]
Earthen tanks and reservoirs	412,140	544,070	452,895
Concrete or rubble masonry dams	0	3,838	4,[illegible]
	(Linear ft)	(Linear ft)	(Linear ft)
Wells	0	5,328	10,280
[illegible] - [illegible]	[illegible]	[illegible]	[illegible]
	(Cubic ft)	(Cubic ft)	(Cubic ft)
[illegible]: Wet'l watering places	0	1,022	374
	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

BREWSTER COUNTY

40.6 Enter Brewster County.

52.6 City of Alpine.

53.4 On left Sul Ross College.

60.9 On left see spreader dams on the G. C. Merriwether ranch. This ranch consists of 22,000 acres of range land on which the following practices have been carried out under the A.A.A. range program: Constructed 11 spreader dams consisting of 18,458 cubic yards and 2 earthen dams consisting of 13,671 cubic yards.

73.3 See damless tanks on the Gage ranch. One on each side of the road. The one on the right side was constructed 13 years ago and the one on the left in 1938. The Gage ranch consists of 365,919 acres of range land on which the following practices have been carried on under the A.A.A. range program: 92 spreader dams consisting of 173,310 cubic yards of dirt, 20 earthen dams consisting of 138,676 cubic yards of dirt, 12,400 linear feet of spreader terraces, 11 wells drilled, and 3200 acres of prickly pear eradicated.

83.2 City of Marathon.

86.0 See well on left on the Gage ranch. Note watering troughs in each pasture.

106.4 On right spreader dams on Steve Strumburg ranch. This ranch consists of 57,890 acres of ranch land. Mr. Strumburg has carried out the following practices: constructed 27 spreader dams consisting of 14,677 cubic yards of dirt, constructed 600 linear feet of spreader terraces, 6 rubble-masonry dams consisting of 441 cubic yards of material and has constructed 5 earthen dams consisting of 24,639 cubic yards.

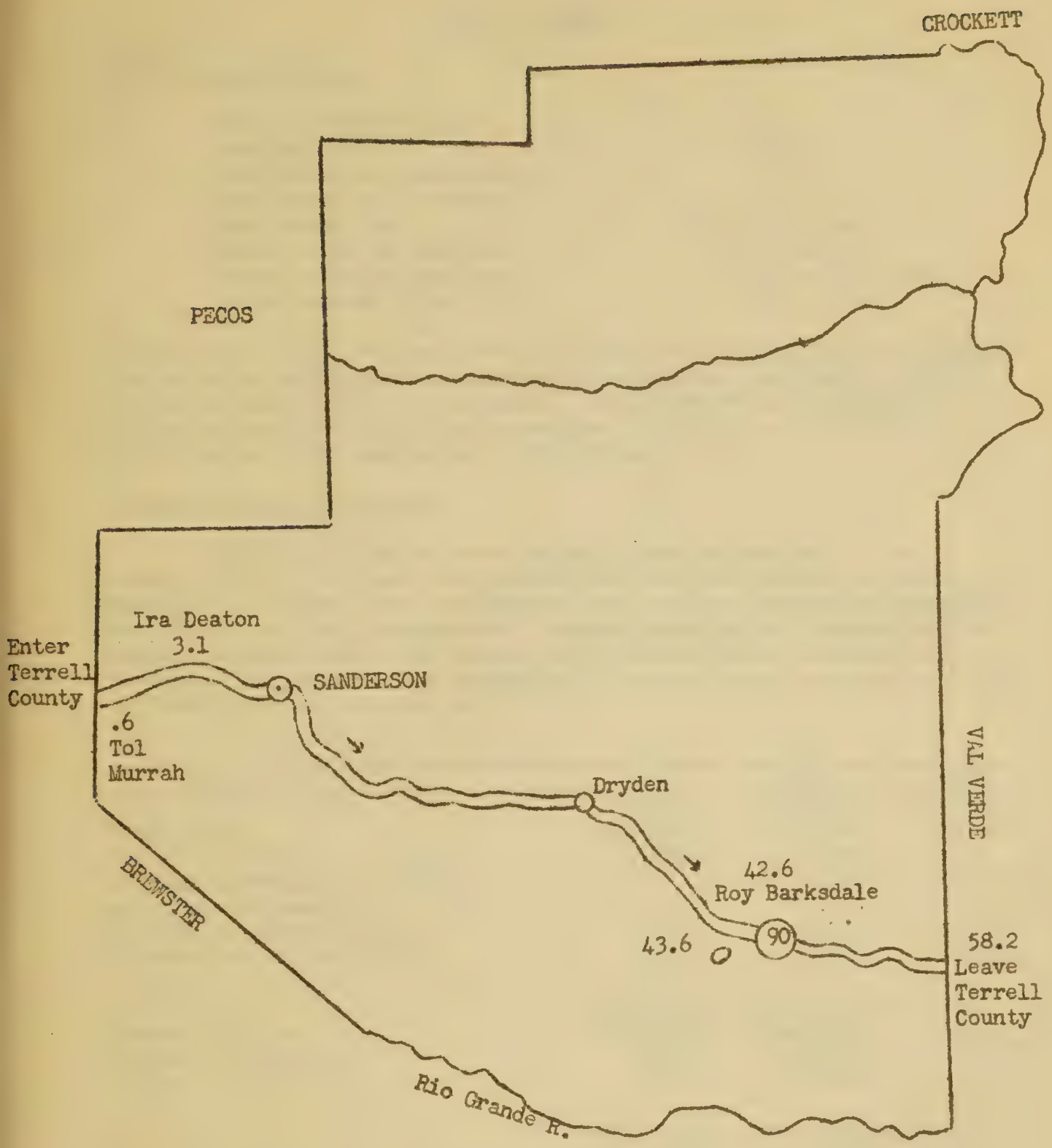
108.1 Strumburg ranch headquarters. Note spreader dam system on right just past headquarters.

112.4 Note spreader dams on right on Strumburg ranch.

114 Leave Brewster County.

114 Enter Pecos County.

125.6 Leave Pecos County.



TERRELL COUNTY

TERRELL COUNTY

General Information:

Area in square miles	2,635
Population	2,950
Population per square mile	1.1
Total number of ranches	115
Total range land	1,668,096 acres
Average size of ranches	14,513 acres
Elevation above sea level	1,500 - 5,000 feet
Annual average rainfall	16 inches

Situated on a high plateau, Terrell County is strictly a range country. Its soils are principally of limestone origin and its grasses consist of the gramas, buffalo and mesquite. Sheep are the most important of its products with 306,000 on its ranges. In addition, the county has 55,000 goats, 7,000 cattle and 1,800 horses.

Range Conservation Program

With lack of stock water as the principal problem in the county, Terrell ranchmen have concentrated on construction of water facilities. Prickly pear eradication and contour furrowing and ridging have also been used extensively. Cooperation with the program has increased steadily since 1937 until today participation is nearly 100 percent. A summary of the participation in the range programs for 1937, 1938 and 1939 is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	1,116,029	1,373,985	1,384,579
Deferred grazing	5,791	12,951	0
Contour furrowing or listing	0	80	5,724
Artificial reseeding	0	165	0
Elimination prickly pear	2,200	35,174	68,623
Elimination of Lechuguilla	9,363	15,978	19,810
	(Linear ft)	(Linear ft)	(Linear ft)
Contour ridging	1,156,810	3,462,641	0
Spreader terraces	785,600	678,697	209,100
Wells	0	14,655	12,749
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	59,782	46,079	0
Concrete or rubble masonry dams	0	4,890	4,747
Earthen tanks or reservoirs	194,336	102,948	94,075
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development: Nat'l watering places	0	799	0
	(Rods)	(Rods)	(Rods)
Range fences	2,530	0	0

TERRELL COUNTY

125.6 Enter Terrell County

126.2 Turn right through cattle guard and cross railroad track, enter Tol Murrah ranch. This ranch consists of 12,841 acres of ranch land, on which 5 rubble-masonry dams have been constructed, consisting of 492 cubic yards of material.

129.3 See rubble-masonry dam and then return to highway, turn right.

132.4 Left, well on Ira Deaton ranch. Notice the reservoir constructed on top of the mountain which furnishes water by gravity through pipe lines over various portions of the ranch.

This ranch consists of 26,796 acres. Mr. Deaton has carried on the following practices: constructed 5 earthen dams consisting of 36,872 cubic yards of dirt, eradicated 1152 acres of prickly pear and drilled one well.

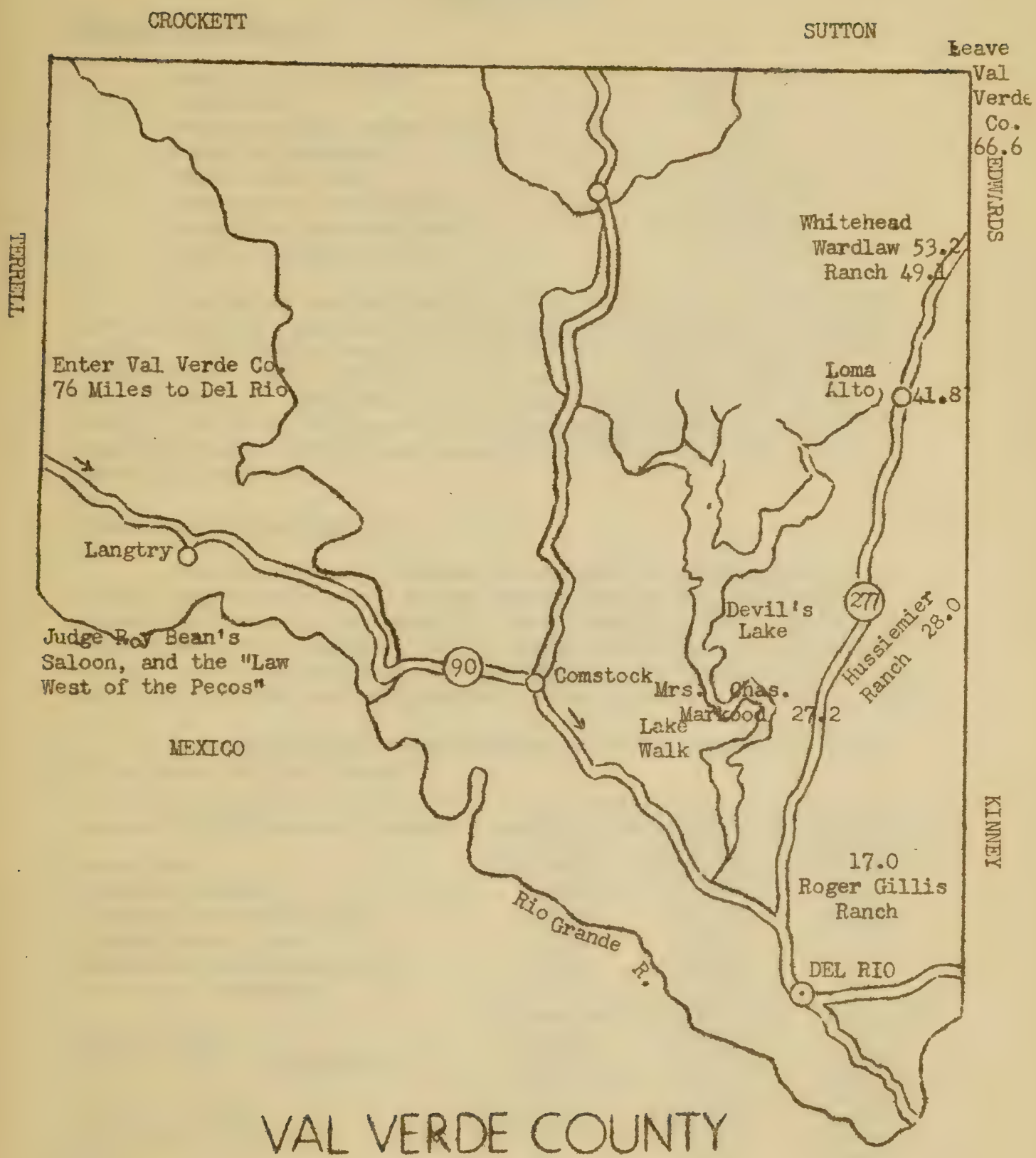
134.8 Left long diversion dam constructed by the State Highway Department to protect the highway. (Not AAA work)

140.3 City of Sanderson.

171.3 Left, see Roy Barksdale ranch. Mr. Barksdale's ranch consists of 28,480 acres of range land. Mr. Barksdale has constructed 5 earthen dams, consisting of 26,548 cubic yards of material and has drilled one well 920 feet deep.

172.3 Right, earthen dam on the Barksdale ranch.

186.9 Leave Terrell County.



VAL VERDE COUNTY

VAL VERDE COUNTY

General Information:

Acre in square miles	3,083
Population	17,100
Population per square mile	5.2
Number of ranches	200
Total range land	2,113,957 acres
Average size of ranches	10,000 acres
Elevation above sea level	965 feet
Annual average rainfall	19.9 inches

Located on the Rio Grande, Val Verde county is a productive livestock county, grazing 625,000 sheep, 130,000 goats, and 50,000 cattle. This is the heaviest sheep-populated county in the country, producing more than 7,000,000 pounds of wool and 3,000,000 pounds of mohair annually. Each year 300,000 lambs are shipped out of the county. Soils are of limestone origin, ranging from loam to Del Rio clay with grama, buffalo and mesquite grasses predominant. Live oak browse is present.

Range Conservation Program

Val Verde county ranchmen are conservation-minded and, as a result, many of them spend two or three times as much each year on conservation work as the amount of their maximum allowances. Exactly 99½ percent of the ranchmen in the county participate in the program. Prickly pear eradication is the most widely used practice, the ranchmen doing the work both by grubbing and using arsenic pentoxide poison.

A summary of the range-building practices carried out under the program is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	1,357,623	1,993,510	2,089,068
Deferred grazing	1,747	15,564	20,454
Elimination: Prickly pear	69,255	127,106	156,331
Elimination of cedar	170	1,215	42
Elimination of Lechuguilla	9,589	13,510	19,758
Artificial reseeding	0	1,370	500
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	51,027	30,173	0
Earthen tanks and reservoirs	213,346	249,827	111,316
	(Linear ft)	(Linear ft)	(Linear ft)
Contour ridging	6,145,919	3,444,359	314,045
Spreader terraces	107,433	924,594	152,872
Wells	0	24,743	16,031
	(Rods)	(Rods)	(Rods)
Range fences	3,004	0	0

VAL VERDE COUNTY

186.9 Enter Val Verde County.

200.9 Langtry, turn right on loop and pass Judge Roy Bean's Court House and return to highway.

Judge Roy Bean was a character who styled himself as "The Law West of the Pecos". The early history of this locality is replete with the stories of Roy Bean's dispensation of justice. He acted as sheriff, judge, and jury. The house has been remodeled but the original structure remains and for the most part is the same as it was when Judge Bean was "The Law West of the Pecos."

Turn right and proceed on Highway 90 to Del Rio.

262.9 City of Del Rio.

Thursday, June 27th
(Start accumulating mileage from Del Rio to San Angelo.)

0.0 Leave Del Rio.

17.0 Enter gate on right, earthen dam on Roger Gillis ranch. This ranch consists of 57,369 acres of ranch land. Mr. Gillis has moved 99,000 cubic yards of dirt in the construction of earthen dams, drilled one well and eradicated 16,075 acres of prickly pear on this ranch. Return to highway and turn right.

27.2 Prickly pear eradication on left. Mr. Charley Markwood's ranch, consisting of 7683 acres of ranch land on which the following practices have been carried on: 1694 acres of pear eradication of grubbing and constructed one earthen dam which consists of 7349 cubic yards of dirt.

28.0 Heavy prickly pear growing on left on the Hussie Mier Ranch. This ranch consists of 33,729 acres of ranch land on which Mr. Mier has carried on the following practices: drilled 3 wells with an average depth of 60 feet, constructed 2 earthen dams which consists of 20,850 cubic yards of dirt and eradicated 1100 acres of prickly pear.

41.8 City of Loma Alta on left.

49.1 (Stop) Left, sprays in operation spraying prickly pear with arsenic pentoxide on the Whitehead-Wardlow ranch. This ranch consists of 60,361 acres of ranch land. The following practices have been carried out under the A.A.A. range program: the eradication of 9,251 acres of prickly pear and the drilling of two wells.

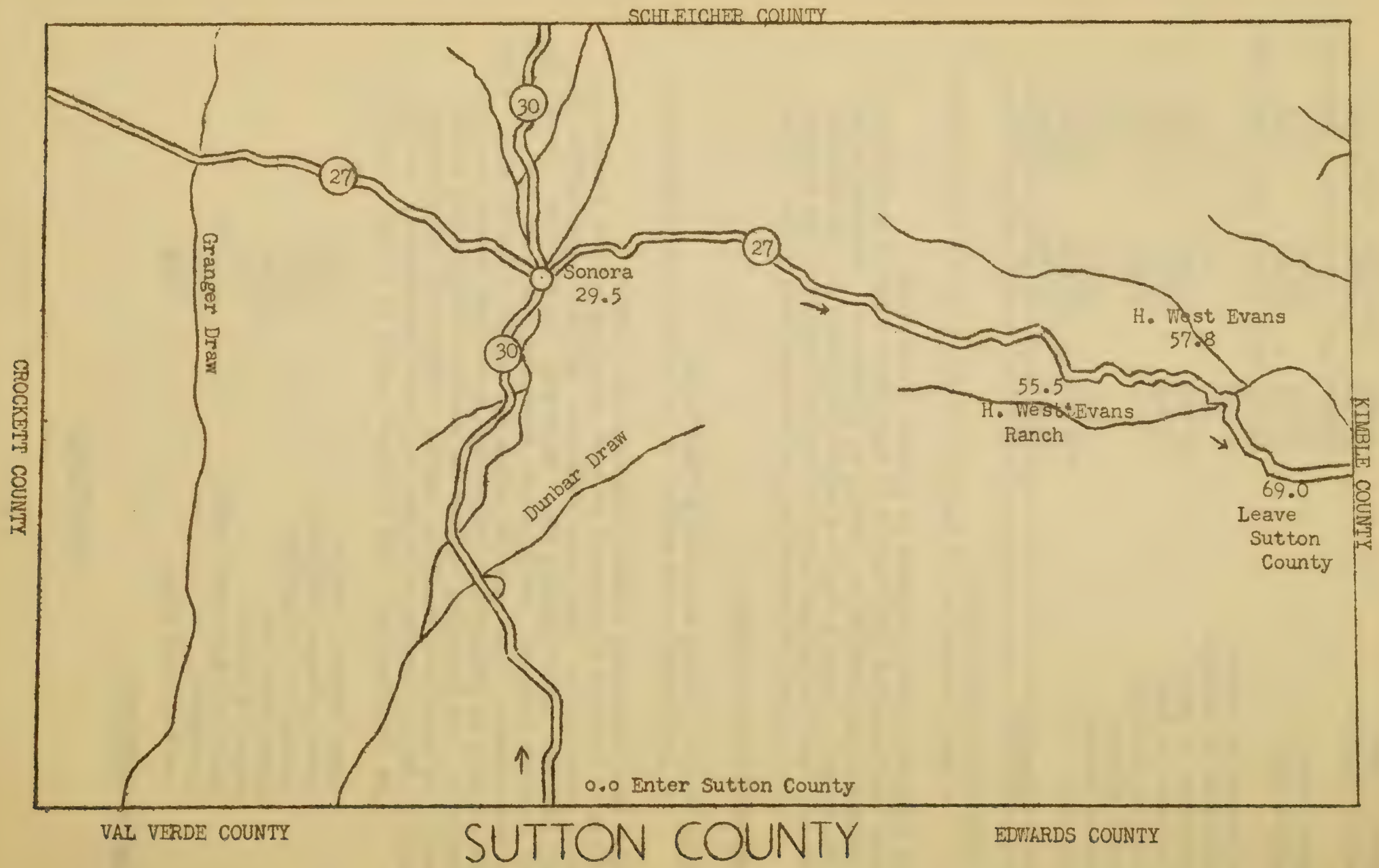
53.2 (Stop) Left, observe results of eradicating prickly pears with arsenic pentoxide on the Whitehead-Wardlow ranch.

66.6 Leave Val Verde County.

[illegible] Left, [illegible] to [illegible] [illegible] with [illegible] particles on the [illegible] [illegible]. This [illegible] totals [illegible] [illegible] of [illegible] [illegible]. The [illegible] [illegible] have been [illegible] to [illegible] [illegible]. [illegible] [illegible] the availability of [illegible] [illegible] of [illegible] [illegible] [illegible] the [illegible] of [illegible] [illegible].

[illegible] Left, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible].


SCHLEICHER COUNTY
CROCKETT COUNTY
KIMBLE COUNTY
VAL VERDE COUNTY
EDWARDS COUNTY
SUTTON COUNTY
Granger Draw
Dunbar Draw
Sonora
29.5
30
27
H. West Evans
57.8
55.5
H. West Evans
Ranch
69.0
Leave
Sutton
County
0.0 Enter Sutton County

SUTTON COUNTY

General Information:

Area in square miles	1,521
Population	2,800
Population per square miles	1.8
Number of ranches	128
Total range land	902,659
Average size of ranches	6,953
Elevation above sea level	2,120
Annual average rainfall	24.5

The principal soil type of Sutton county is Valera. The topography is gently rolling to rolling with wide flats between low hills. There is an excellent variety of desirable vegetation for livestock production. The principal grasses are mesquite, buffalo and gramas. There is also an abundance of rescue and spear grass during the fall and winter season. The principal weeds are tallow, peavine, draba, filaree, nama and verbena. The principal trees and shrubs are live oak, shin oak, mesquite, cedar, prickly pear, sacahuista and cat claw. Located in Sutton County is the Texas Range Experiment Station. This station has carried on valuable experiments in range conservation, the control of bitter weed and animal diseases common to West Texas.

Sutton county ranges support at the present time approximately 17,000 cattle, 271,000 sheep and 61,000 goats.

Range Conservation Program

In 1937 only 43 percent of the ranchmen participated in the Range Conservation Program while in 1939 the percentage has climbed to 88 percent. Prickly pear and cedar eradication are big problems, but probably the greatest is control of bitterweed. Ranchmen in the county are attacking this problem by practicing deferred grazing and then pulling up the bitterweed to prevent its seeding.

A brief summary of the practices carried out under the program in 1937-1939 is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	458,589	807,418	830,834
Deferred grazing	6,060	20,794	12,123
Contour furrows	0	0	103
Artificial reseeding	0	4,630	220
Elimination of pear	21,405	34,583	57,527
Elimination of cedar	14,228	24,649	26,407
Elimination of mesquite	166	507	0
Eradication of rodents	695	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	33,168	28,378	17,090
Earthen tanks	45,822	74,059	22,101
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	421,725	718,120	204,861
Contour ridging	9,822	2,802,780	2,033,334

Number of varieties	12a
Total range land	9[illegible],[illegible]
Average size of ranches	6,[illegible]
Elevation above sea level	2,12[illegible]
Annual average rainfall	24.[illegible]

The principal soil type of Sutton county is [illegible]. The topography is gently rolling to rolling with flats between low ridges. There is an excellent variety of desirable vegetation for livestock production. The principal grasses are mesquite, buffalo and [illegible]. There is also an abundance of cactus and spear grass during the land and winter seasons. The principal weeds are [illegible], pecans, [illegible], [illegible] and various. The principal trees and shrubs are live oak, [illegible], [illegible], [illegible], [illegible] and [illegible]. Loyal [illegible] County is the Texas Agricultural Station. This station [illegible] on values is concerned in range conservation, the control of [illegible] weed and animal diseases common to West Texas.

Sutton county ranges support at the present time approximately [illegible],000 cattle, 2[illegible],000 sheep and 31,000 goats.

Conservation Program

In 1942 only 43 farmers of the ranchmen participated in the Conservation Program and in 1943 the percentage has climbed up [illegible] percent. Entirely poor and cedar eradication are big problems. [illegible] are attacking this problem by practicing deferred grazing and [illegible] pulling up the bitterwood to prevent its seeding.

A brief summary of the practices carried out under the program in 1942-1943 is given below:

[illegible]	1942	1943
[illegible]	0	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	
[illegible]	[illegible]	
(Dunn pie)	(Dunto pie)	(Cable pie)
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
(Dunn 1t)	(Dunn 2t)	(Dunn 3t)
[illegible]	[illegible]	[illegible]

SUTTON COUNTY

66.6 Enter Sutton County.

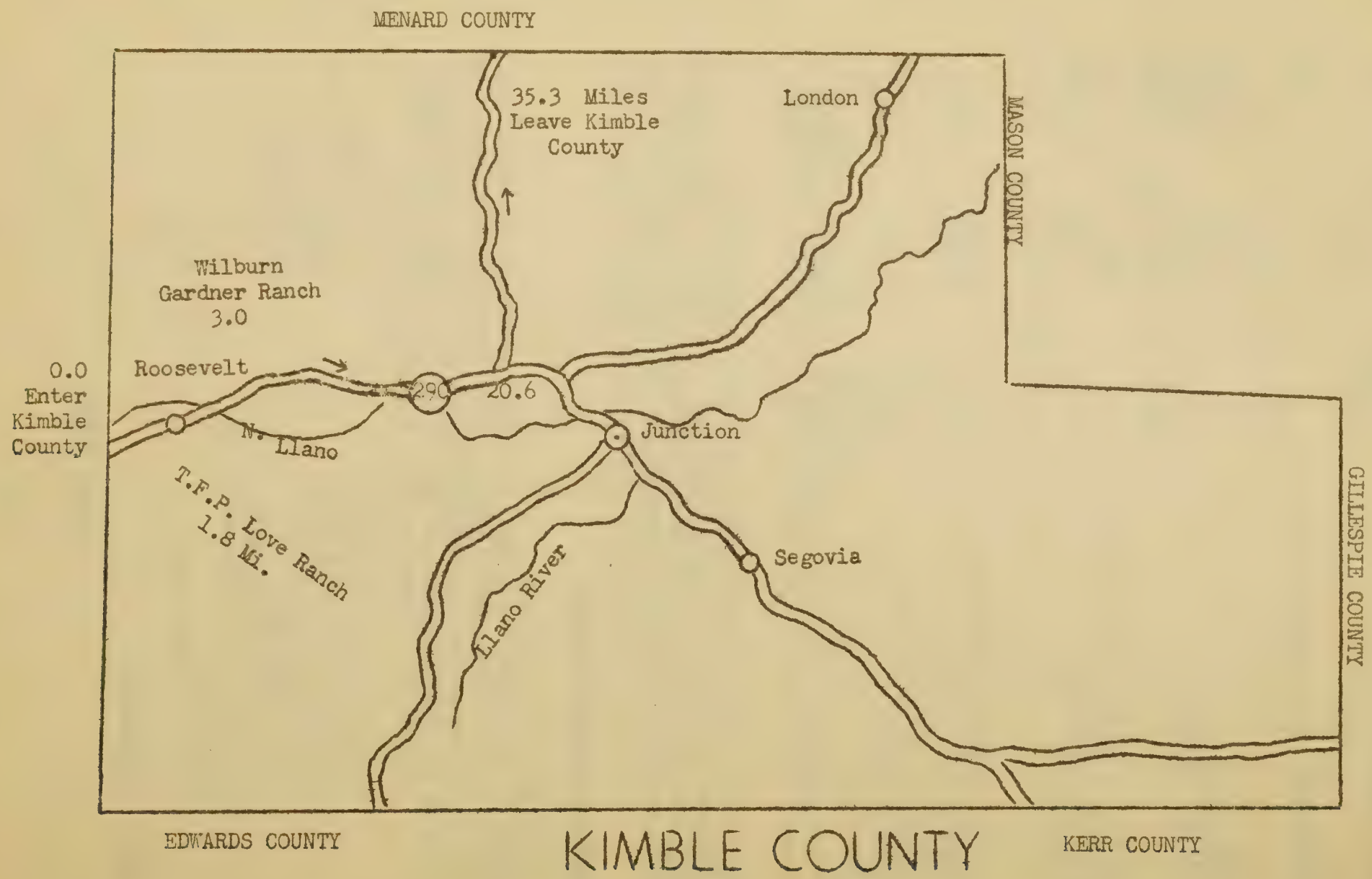
96.1 City of Sonora.

Turn right on U. S. 290.

122.1 Well on right on the H. West Evans ranch. This ranch consists of 58921 acres of ranch land on which there have been 13 wells drilled, 7 earthen dams constructed, containing 32,185 cubic yards of dirt and 1 spreader dam, consisting of 970 cubic yards.

124.4 Left well on the Evans ranch.

135.6 Leave Sutton County.



KIMBLE COUNTY

KIMBLE COUNTY

General Information:

Area in square miles	1,301
Population	4,119
Population per square mile	3.2
Total number of ranches	305
Total range land	698,059 acres
Average size of ranches	2,195 acres
Elevation above sea level	1,800 - 2,300 feet
Annual average rainfall	26 inches

Located in a productive wool and mohair area, Kimble county is one of the leading sheep and goat counties. Kimble also produces beef cattle and horses. Principal grasses in its gray loam soil are buffalo and the gramas with filaree - both Texas and California - and peavine as the principal weeds. Live oak, mesquite, sacahuista and cat claw provide ample browse.

Range Conservation Program

With the need for water a relatively unimportant problem, Kimble county ranchmen have concentrated on eradication of the dense growths of cedar and prickly pear. Cooperation has increased from 85 percent in 1937 to 91 percent in 1939. A summary of the practices carried out under the program in 1937-1939 is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	373,208	586,617	669,511
Deferred grazing	8,080	12,156	8,883
Elimination of prickly pear	3,482	7,226	10,479
Elimination of mesquite	59	11	21
Elimination of cedar	27,254	48,758	49,921
Contour listing or furrowing	0	4,584	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	40	892	0
Tanks and reservoirs	6,917	2,348	17,699
Concrete or rubble masonry dams	0	1,473	177
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	2,640	22,257	22,739
Contour ridging	0	181,000	82,482
Wells	0	4,044	4,546
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development: Nat'l watering places	0	0	462
	(Rods)	(Rods)	(Rods)
Range fences	1,380	0	0

Area in square miles	[illegible]
Population	
Population per square mile	[illegible]
Total number of vehicles	[illegible]
Total range land	[illegible] acres
Average size of vehicles	[illegible] acres
Elevation above sea level	[illegible] - [illegible] feet
Annual average rainfall	[illegible] inches

[illegible] of the leading sheep and goat counties. Minute [illegible] cattle and horses. Principal crops in the gray loam soil are [illegible] and the grains with filaree - burr clover and California - and [illegible] as the natural weeds. Live oak, madrone, chaparral and oak [illegible] provide ample browse.

[illegible] Conservation Program

With the need for [illegible] a solution by [illegible] problems, [illegible] county residents have concentrated on [illegible] of the [illegible] of water and [illegible] year. Conservation has increased from [illegible] acre in 1922 to [illegible] in 1949. A summary of the [illegible] with which the program in 1947-1949 is given below:

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
Contour [illegible]	[illegible]	[illegible]	[illegible]
Contour [illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible] or mobile [illegible]	[illegible]	[illegible]	[illegible]

	(Lumber Ft)	(Lumber Ft)	(Lumber Ft)
Protection [illegible]	[illegible]	[illegible]	[illegible]
Contour [illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

	(Cubic Yd)	(Cubic Yd)	(Cubic Yd)
[illegible]			

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

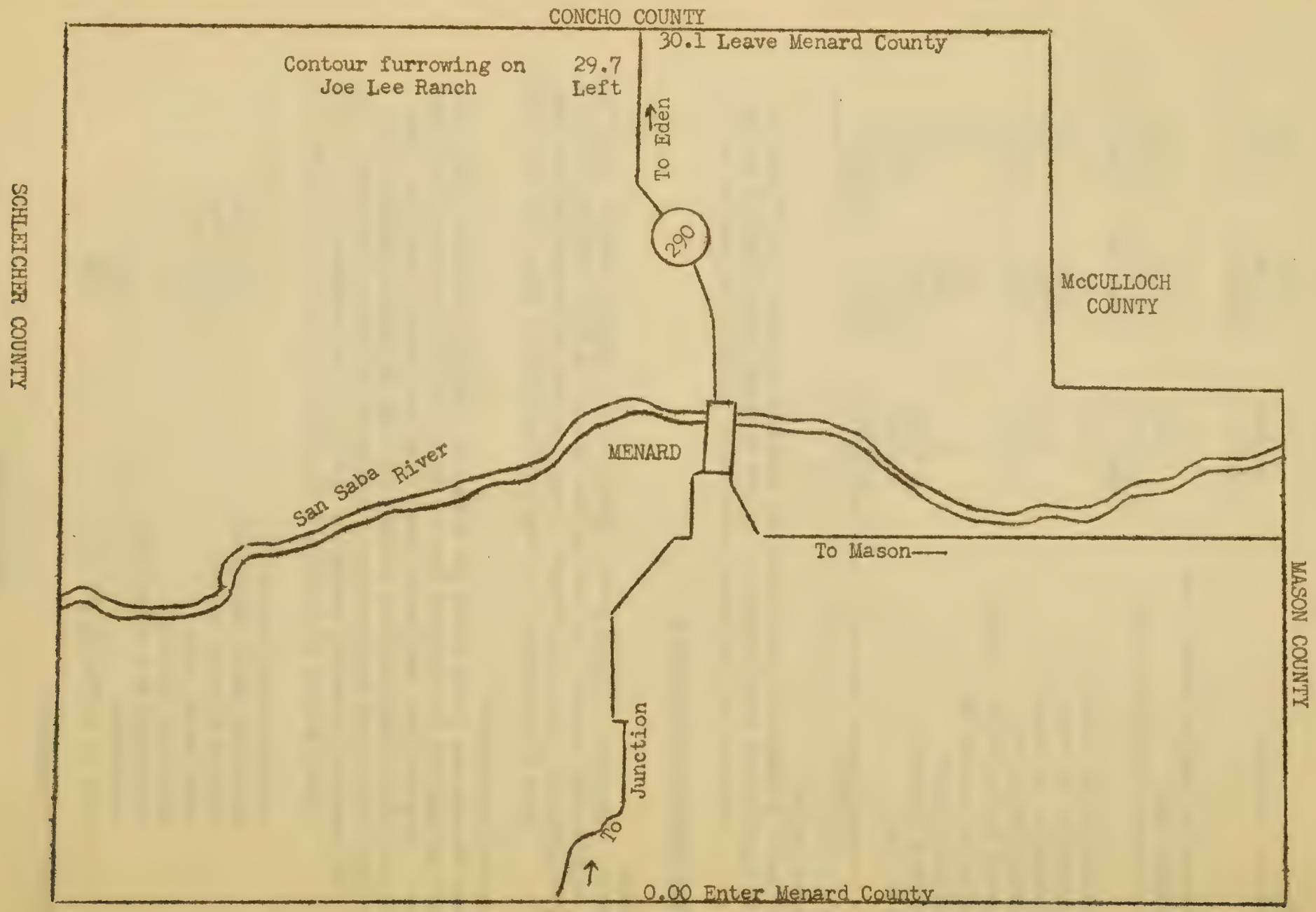
KIMBLE COUNTY

135.6 Enter Kimble County.

137.4 Turn right through Bumper Gate. Eradication of cedar on the T. F. P. Love ranch, which consists of 1232 acres of range land. Mr. Love has eradicated 565 acres of heavy cedar on this ranch. After reviewing the eradication of cedar and eating lunch as guests of Kimble County ranchmen, return to highway and turn right.

139.2 Left, eradication of cedar on the Wilburn Gardner ranch. This ranch consists of 1,672 acres of ranch land on which Mr. Gardner has eradicated 865 acres of heavy cedar under the range program.

139.2 Leave Kimble County.



MENARD COUNTY

MENARD COUNTY

General Information:

Area in square miles	914
Population	4,850
Population per square mile	5.3
Number of ranches	210
Total range land	565,840 acres
Average size of ranches	2,656 acres
Elevation above sea level	2,200 feet
Average annual rainfall	25.3 inches

Menard county is a leading ranching and livestock farming area on the Edwards Plateau of Southwest Texas. It is composed of a rolling to hilly and broken surface with an altitude of about 2,200 feet. The San Saba River traverses the central part of the county flowing eastward. Dark and gray and sandy loam soils are found. Mesquite, live oak, and Spanish oak timbers cover a large part of the county and fine pecan groves are found along the streams. Buffalo, mesquite and grama grasses predominate.

Most of the county is used for grazing and there has been much improvement of livestock breeds. Herefords are the predominating type of cattle with Rambouillet and Delaine Merino as the principal types of sheep. There are 243,000 sheep, 65,000 goats, 18,200 cattle, and 1,520 horses.

Range Conservation Program

Emphasis in the Range Conservation Program has been on prickly pear eradication with nearly all of the ranchmen participating in the program. A summary of the practices carried out under the program is listed below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	236,539	383,482	503,170
Deferred grazing	5,172	8,973	7,294
Contour ridging	0	100	645
Artificial reseeding	0	200	231
Contour furrowing or listing	0	0	250
Elimination of pear	8,981	17,600	34,000
Elimination of mesquite	1,918	3,000	176
Elimination of cedar	0	135	550
Eradication of rodents	9,949	0	0
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Earthen tanks and reservoirs	69,491	77,801	104,000
Spreader dams	890	5,770	19,239
Concrete or rubble masonry dams	0	148	0
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	40,499	16,758	93,032
Wells	0	6,400	5,850
	(Rods)	(Rods)	(Rods)
Range fences	1,130	0	0

MENARD COUNTY

170.9 Enter Menard County.

173.9 1939 light pear eradication of 125 acres on Jim Bishop ranch to the right.

176.2 Left, Perry & Reed East Headquarter Ranch. 1937 practices included one earthen tank, eradication of 435 acres of prairie dogs; 1938 practices included 1,200 linear feet contour ridges, tanks, spreader dams, terraces and wells; 1939 practices included a tank, spreader dam in which 8,000 cu. yds. of material was moved and 30,000 linear feet of terraces built.

183.9 The area to the left was deferred from grazing in 1939 on C. L. Martin & Sons Ranch.

187.1 1939 pear eradication on the left 130 acres on the J. S. Slover Ranch.

189.6 City of Menard - Straight through.

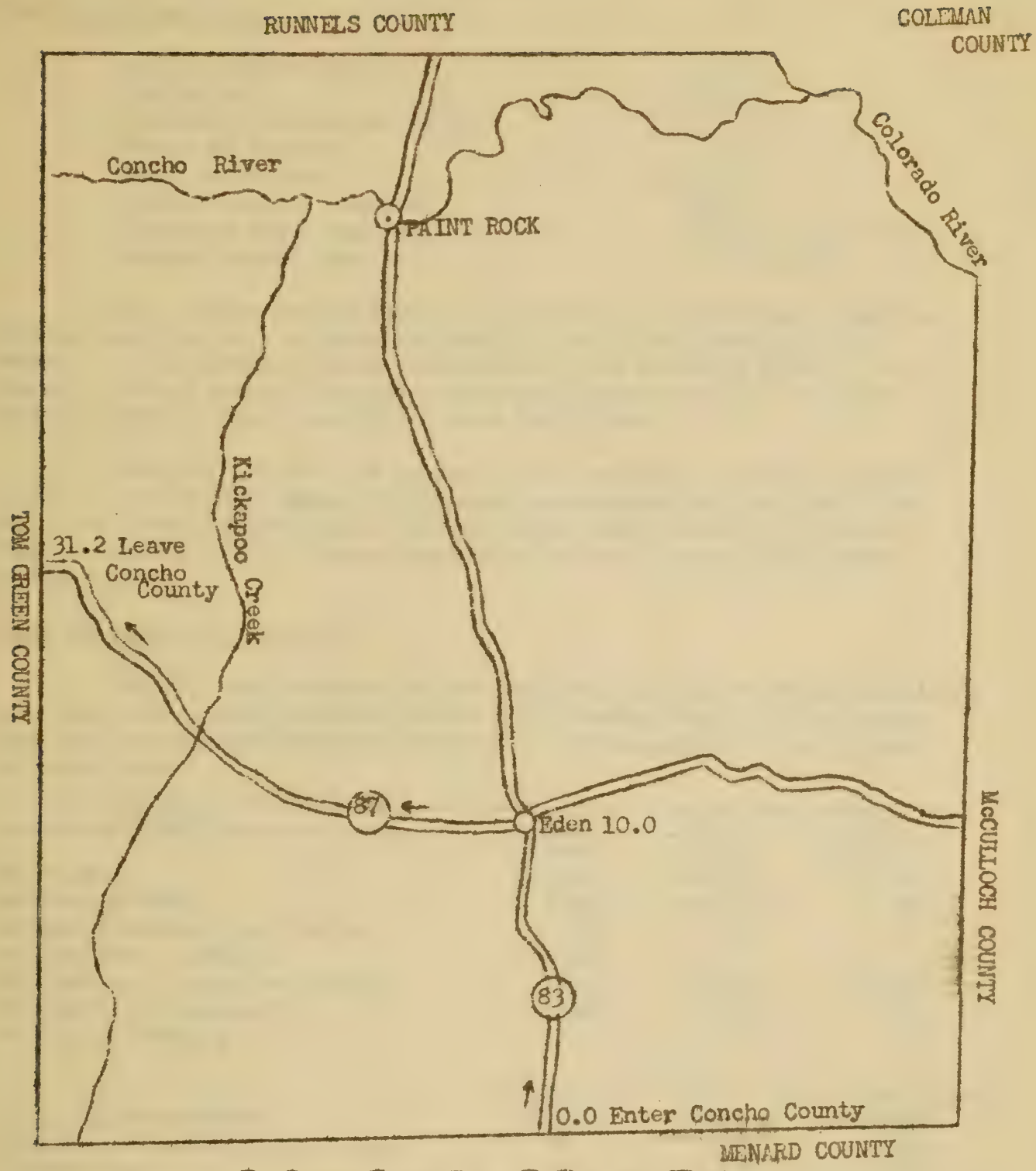
189.7 San Saba River.

192.3 Right, 1939 field terracing on the Wm. Volkmann Ranch.

196.8 Right, Lawrence Ruff Headquarters Ranch. 410 acres pear eradication in 1939, earthen tank in 1940.

200.6 Left, contour furrowing planted with 130 pounds of Italian Rye, Rescue Grass and Burr Clover in 1939 on the Joe Lee Ranch.

201 Leave Menard County. Enter Concho County.



CONCHO COUNTY

CONCHO COUNTY

General Information:

Area in square miles	918
Population	7,645
Population per square mile	8.3
Number of ranches	202
Total range land	450,000
Average size of ranches	2,225
Elevation above sea level	1,600 - 2,100 feet
Average annual rainfall	24 inches

The surface varies from rough country in the southern half to rolling prairies in the northwest portion, with the northeast very broken. It is bordered on the northeast by the Colorado River. The famous "painted rocks," hieroglyphs of prehistoric origin, are found in the cliffs of the Concho River near Paint Rock.

With buffalo and the gramas as its principal grasses, Concho county also has good browse in filaree, tallow weed and peavine. Its soils are dark and gray loam. Cattle, sheep and goats are its principal industries. The Concho sheep population is one of the largest in the State.

Range Conservation Program

Prickly pear eradication and the construction of water facilities have been the leading practices adopted in Concho county. Cooperation with the program has increased steadily. Participation in the program is given below:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	254,405	360,475	365,819
Deferred grazing	3,050	11,570	4,346
Contour furrowing and listing	12	320	8
Eradication of rodents	5,224	0	0
Elimination of pear and cactus	8,915	32,942	40,088
Elimination of mesquite	1,068	658	176
Artificial sodding	0	0	27
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Tanks and reservoirs	132,573	126,460	121,828
Concrete or rubble masonry dams	0	0	176
Spreader dams	0	0	5,566
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	0	4,084	24,860
Wells	0	2,954	1,455
Fireguards	62,832	147,840	0
	(Cubic ft)	(Cubic ft)	(Cubic ft)
Development: Nat'l watering places	0	2,552	0
	(Rods)	(Rods)	(Rods)
Range fences	800	0	0

CONCHO COUNTY

201 Enter Concho County

204 Pear eradication work in 1940.

208 Mesquite eradicated in 1939 by grubbing.

209.5 1939 pear eradication.

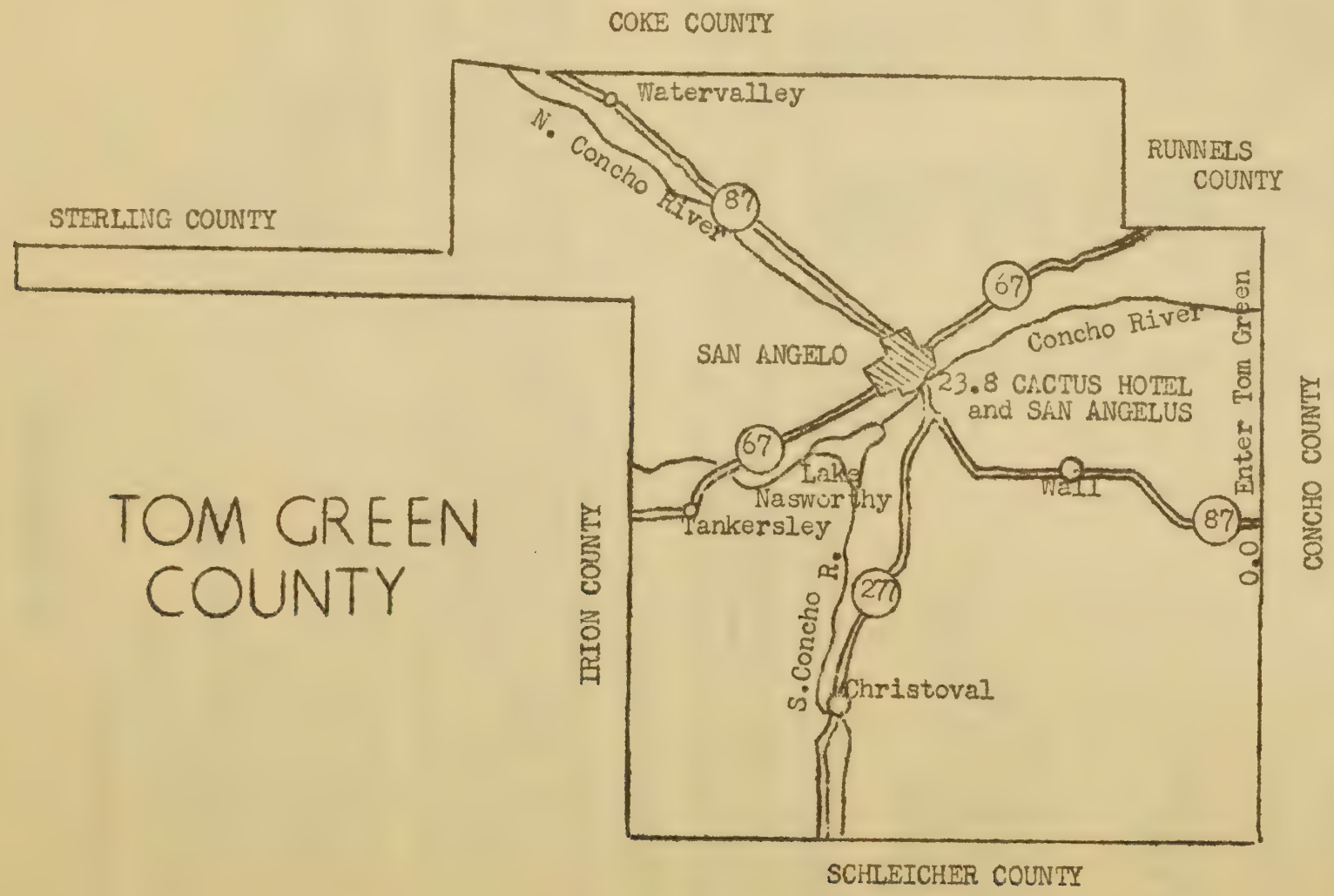
211 City of Eden.

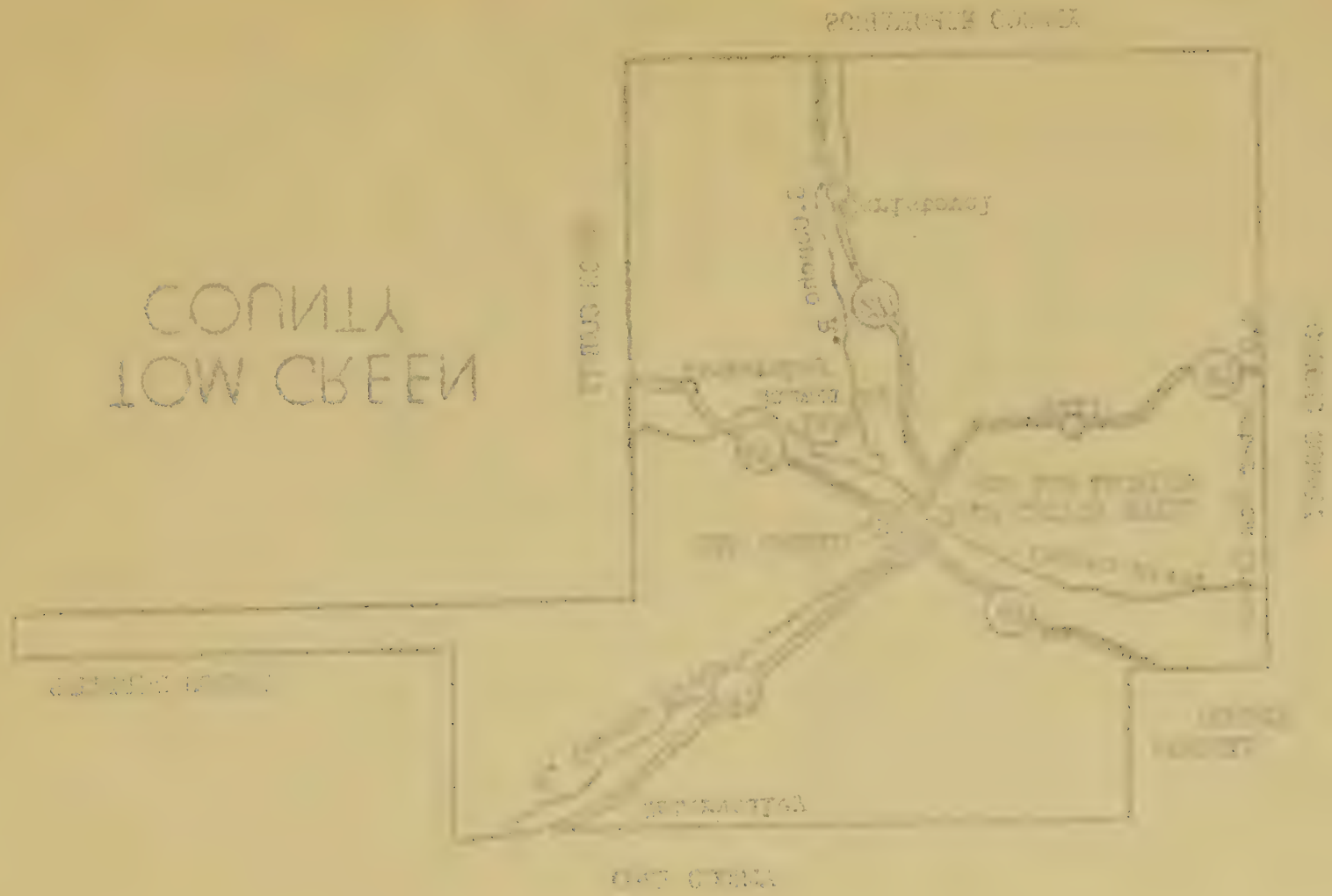
Proceed in city limits of Eden to Highway 87, turn left on Highway 87 to San Angelo.

213.5 Left, 1938 and 1939 pear eradication.

226.4 Rubble masonry dam constructed in 1939.

Leave Concho County. Enter Tom Green County.


COKE COUNTY
Watervalley
N. Concho River
87
STERLING COUNTY
RUNNELS COUNTY
67
Concho River
SAN ANGELO
23.8 CACTUS HOTEL and SAN ANGELUS
Enter Tom Green
CONCHO COUNTY
67
Lake Nasworthy
Wall
87
Tankersley
TOM GREEN COUNTY
IRION COUNTY
S.Concho R.
277
Christoval
SCHLEICHER COUNTY


COUNTY
TOM GREEN

TOM GREEN COUNTY

General Information:

Area in square miles	1,454
Population	41,000
Population per square mile	24.8
Number of ranches	260
Total range land	753,000 acres
Average size of ranches	2,890 acres
Elevation above sea level	1,800 - 2,100 feet
Average annual rainfall	22 inches

Located on the edge of the Edwards Plateau, Tom Green county and its county seat, San Angelo, comprise the largest inland wool market in the world. Its own ranges are stocked with 274,000 sheep and 31,000 beef cattle. Its soils are alluvial, loam and sandy loam. Grasses consist mainly of buffalo, mesquite, triodia, grama and rescue; browse consists principally of live oak.

Range Conservation Program

With ranchmen cooperating almost 100 percent with the AAA, more and more work has been done under the program every year. The summary of the range conservation practices carried out follows:

Practice	1937	1938	1939
	(Acres)	(Acres)	(Acres)
Range land	307,125	520,278	616,233
Deferred grazing	2,580	11,710	2,498
Contour furrowing or listing	15	66	55
Elimination of pear and cactus	46,754	60,319	73,016
Elimination of mesquite	18	338	107
Elimination of cedar	903	2,434	3,001
	(Cubic yds)	(Cubic yds)	(Cubic yds)
Spreader dams	10	1,800	3,072
Tanks and reservoirs	6,084	28,334	72,322
	(Linear ft)	(Linear ft)	(Linear ft)
Spreader terraces	480	2,539	14,800
Wells	0	869	1,263
Contour ridging	0	111,722	2,200

Population per square mile	1,434
Number of students	4,040
Total crops land	[illegible]
Average size of members	[illegible]
Elevation above sea level	4,000 acres
Average annual rainfall	1,000 - 1,100 feet
	22 inches

Bounded on the east of the Alameda Plateau, Tom Green county and its county seat, San Angelo, comprise the largest inland wool market in the world. Its sun ranges are stocked with 2[illegible],000 sheep and 3[illegible],000 head cattle. Its mills are thriving, lean and sturdy farms produce considerably of bulrush, acquatic, tulsdin, grass and tension; browse consists principally of live oak.

With maximum cooperation almost 100 percent with the soil conservation and more work has been done under the program every year. The county of the range conservation practices carried out follows:

Farm land	[illegible]	[illegible]
Control grazing	[illegible]	[illegible]
Contour furrowing or listing	[illegible]	[illegible]
Elimination of poor one species	[illegible]	[illegible]
Elimination of acquatic	[illegible]	[illegible]
Elimination of cedar	[illegible]	[illegible]

(Table 3)

Rainwater dams	[illegible]	[illegible]
Gully control structures	[illegible]	[illegible]
Total	[illegible]	[illegible]

TOM GREEN COUNTY

Since none of the AAA practices are located convenient to the highway, we invite you to turn to the general information on Tom Green County and note the practices carried out by the Tom Green County ranchmen.

226.4 Enter Tom Green County.

231.8 65 acres of pear eradicated in 1940.

250.2 City limits of San Angelo.

TOM GREEN COUNTY

Since none of the AAA practices are located convenient to the highway, we invite you to turn to the general information on Tom Green County and note the practices carried out by the Tom Green County farmers.

226.4 Enter Tom Green County.

231.8 65 acres of pear eradicated in 1940.

250.2 City limits of San Angelo.